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**Supplemental Groundwater Monitoring Well Installations**

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*Former Remington-  
Rand Facility*

Middletown  
Connecticut

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Prepared for      Municipal Development Office  
                          Middletown, Connecticut

Prepared by      **VHB/Vanasse Hangen Brustlin, Inc.**  
                          Middletown, Connecticut



54 Tuttle Place  
Middletown  
Connecticut 06457  
860 632 1500  
FAX 860 632 7879

February 4, 1998

Ref: 40163

Ms. Cynthia Wilcox, Development Project Manager  
Municipal Development Office  
The City of Middletown  
P.O. Box 1300, Municipal Office Building  
245 deKoven Drive  
Middletown, CT 06457-1300

Re: Supplemental Groundwater Monitoring Well Installations  
Former Remington-Rand Facility  
Middletown, CT

Dear Ms. Wilcox:

In accordance with Task I of Change Order No. 2 to of our agreement, Vanasse Hangen Brustlin, Inc. (VHB) conducted a supplemental subsurface investigation in September 1997 at the Former Remington-Rand Facility located at 180 Johnson Street in Middletown, Connecticut (the Site). Based on the findings of the initial subsurface investigation, dissolved solvents in groundwater were identified which may have originated from adjacent nearby properties or from past on-site solvent use/storage/disposal. This letter report was prepared for the City of Middletown, and is subject to the terms of the Agreement between the City of Middletown and VHB and the limitations provided as Attachment A.

#### SUBSURFACE INVESTIGATION

On July 31, 1997 and September 15, 1997, VHB supervised the advancement of six (6) soil borings (B-26 to B-31) and the installation of six (6) groundwater monitoring wells (MW-7 to MW-12). Soil boring advancement and groundwater monitoring well installation activities were conducted by Technical Drilling Services (TDS) of Leominster, Massachusetts. VHB directed the field investigation, observed soil conditions, screened soil samples, and collected soil and groundwater samples.

Soil borings were advanced by a van-mounted GeoProbe®, enabling continuous sampling from ground surface to approximately 12 feet below grade. Soil samples were collected through the use of a two-inch diameter stainless steel core barrel with dedicated acetate sleeve liners. Soil samples were collected to characterize existing soil conditions and to screen soil samples for the presence of contamination throughout the depth of each boring. Soil boring logs are included as Attachment B.

#### OBSERVATIONS AND SOIL SAMPLING

In general, native soil at the Site consists of a light brown fine to silty sand to a depth of approximately 10 to 12 feet. A light brown silty clay layer was observed throughout the Site at a depth of approximately 12 feet and greater. The depth of this silty clay layer coincided with the level of the "confining layer" observed during previous investigations across the Site.



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Based upon visual observations or olfactory evidence, suspect soil samples were field screened using a photo-ionization detector (PID) calibrated to an isobutylene standard. Samples were field screened using a standard methodology for the jar headspace analytical screening procedure which measures total ionizable volatile organic compounds (TVOCs). Field screening results are summarized in the soil boring reports included in Attachment B. Soil samples submitted for laboratory analyses were collected, based upon elevated headspace readings, marked changes in soil strata, or, in the absence of overt evidence of oil or hazardous material (OHM), proximity to the observed silty clay layer.

No overt or olfactory evidence of a release of oil or hazardous materials (OHM) was observed in any of the six soil borings advanced under this phase of the work. Soil samples were collected for laboratory analyses, just above the silty clay layer observed in each of the borings. All soil samples were preserved on ice and delivered to a Connecticut-certified laboratory for volatile organic compound (VOC) analyses by EPA Method 8240.

#### GROUNDWATER SAMPLING AND ANALYSIS

The six monitoring wells (MW-7 to MW-12) were installed to depths of 10 to 12 feet below grade within soil borings B-26 to B-31. Each well was constructed of 3/4-inch diameter PVC well materials with two feet of screen. A sand pack was placed from the soil boring terminus to one foot above the screen followed by a clay bentonite seal. Each well was capped and locked with a flush-mounted road box. Each well was completed to a depth that was consistent with penetrating approximately six to twelve inches into the silty clay soil confining layer observed throughout the Site.

On September 23, 1997, VHB purged and sampled the six monitoring wells. Three to five well volumes of groundwater were removed from the wells prior to sampling. After well stabilization, groundwater samples were collected using dedicated disposable bailers for VOC sample collection. All groundwater samples were preserved on ice and delivered to a Connecticut-certified laboratory for VOC analyses by EPA Method 8240.

#### GROUNDWATER ELEVATIONS AND FLOW DIRECTION

On September 24, 1997, the casings for all six monitoring wells were surveyed to help establish groundwater flow direction. As shown on Figure 1, an assumed datum of 100 feet was set at the base of utility pole #8400, located near the Johnson Street entrance to the Site. All measurements are based on this assumed datum. The following data were recorded during groundwater gauging and wellhead surveying activities:



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**Table 1 Groundwater Monitoring Well Measurements**

Monitoring Well	Existing Ground Surface Elevation (feet)	Depth to Groundwater from Ground Surface (feet)
MW-7	97.19	5.94
MW-8	97.59	4.20
MW-9	97.11	4.12
MW-10	96.96	5.10
MW-11	96.30	5.20
MW-12	96.69	6.45

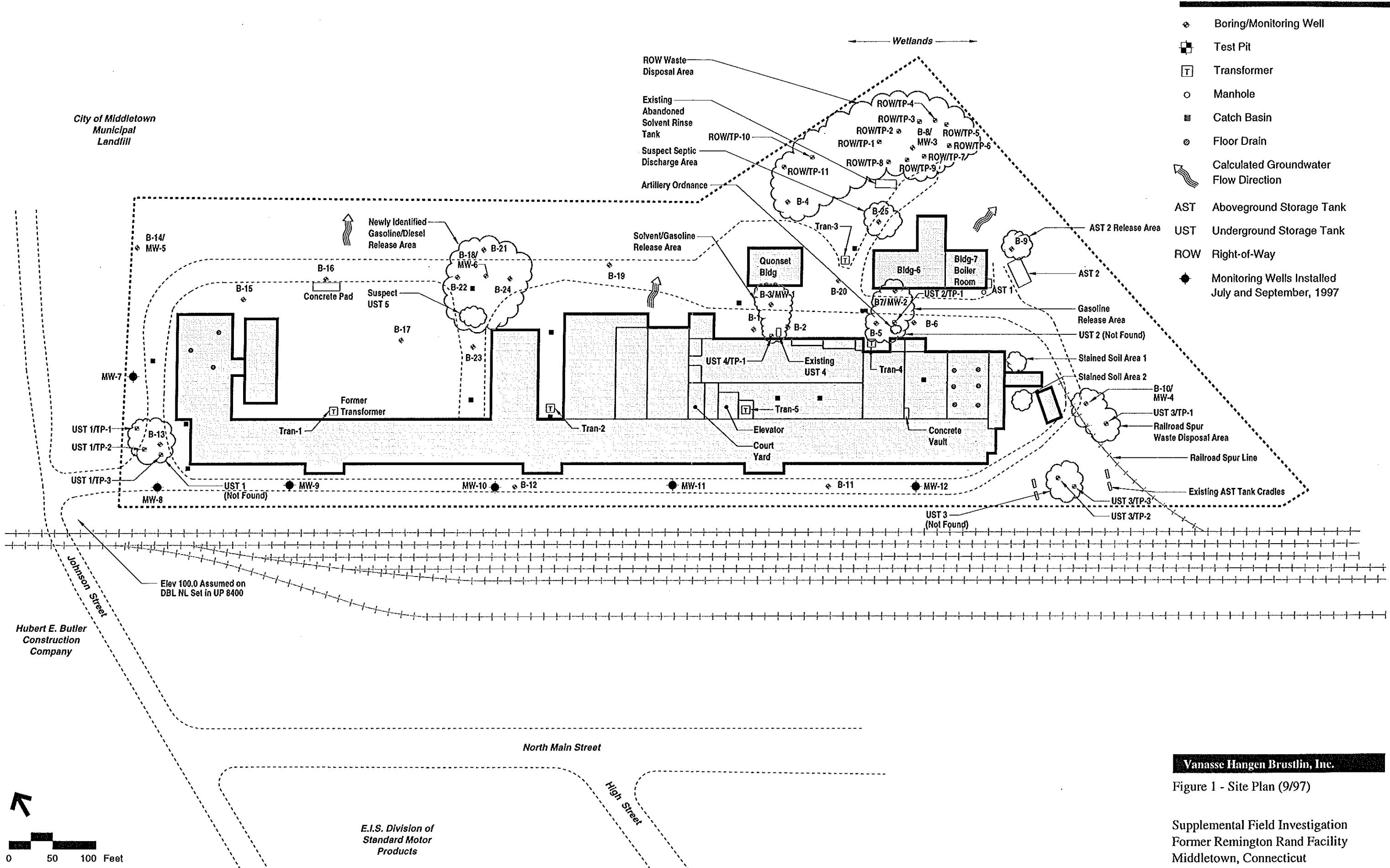
Notes:

1. Apparent water table elevations were gauged on September 23, 1997.
2. Elevations are related to assumed elevation of 100.00 feet at base of utility pole #8400

Measured water table elevations vary from approximately four to six feet below ground surface across these six wells. Triangulation of apparent water table elevations between groundwater monitoring wells indicates that local groundwater flows across the Site in an easterly to northeasterly direction (see Figure 1).

#### **ANALYTICAL RESULTS**

Soil and groundwater analytical results are summarized in Tables 2 and 3. As shown in the tables, no chlorinated solvents were reported in any of the soil or groundwater samples submitted for analysis, although, chloroform and methylene chloride were reported in some of the soil and groundwater samples. These two VOCs are common laboratory contaminants that are often introduced into samples in the laboratory, as evidenced by low levels of both compounds in the laboratory supplied trip blank (submitted for groundwater analyses). Concentrations for both suspected laboratory contaminants are well below any applicable standards established by the Connecticut Department of Environmental Protection Remediation Standard Regulations (RSR), Section 22a-133k.



**Vanasse Hangen Brustlin, Inc.**

Figure 1 - Site Plan (9/97)

**Supplemental Field Investigation  
Former Remington Rand Facility  
Middletown, Connecticut**

**Table 2** Soil Sampling Results**Former Remington-Rand Facility, 180 Johnson Street, Middletown, CT**

Parameter	Sample Identification	Well MW-7/ B-26 6'8"	Well MW-8/ B-27 10-12'	Well MW-9/ B-28 10-11'	Well MW-10/ B-29 9-10'	Well MW-11/ B-30 9-11'	Well MW-12/ B-31 11-12'	Residential Direct Exposure Criteria	Industrial/Commercial Direct Exposure Criteria	GB Pollutant Mobility Criteria
EPA Test Depth										
VOC 8240 Methylene Chloride	0.019	~	~	~	~	~	~	82	760	1

Notes: All analytical results are listed in milligrams per kilogram (mg/kg), roughly equivalent to parts per million (ppm).

~, where present, indicates the result is less than the laboratory method detection limit.

**Table 3** Groundwater Sampling Results**Former Remington-Rand Facility, 180 Johnson Street, Middletown, CT**

Parameter	Sample Identification	Well MW-7	Well MW-8	Well MW-9	Well MW-10	Well MW-11	Well MW-12	Trip Blank	Surface Water Protection Criteria	Residential Volatilization Criteria	Industrial/Commercial Volatilization Criteria
EPA Test											
VOC 8240 Chloroform	0.001	0.0011	0.0008	~	~	~	0.0021	14.1	0.287	0.710	
Methylene Chloride	~	~	0.0067	~	~	0.0107	0.003	48	50	50	

Notes: Unless otherwise indicated, all analytical results are listed in milligrams per liter (mg/L), roughly equivalent to parts per million (ppm).

~, where present, indicates the result is less than the laboratory method detection limit.



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#### SUMMARY OF FINDINGS

The supplemental subsurface investigation was conducted to help determine if previously identified groundwater contamination was migrating onto the Site from off-site sources. Based on the analytical results, soil and groundwater contamination was not identified within the six newly installed soil boring/monitoring well locations located along the property boundary. Two constituents (methylene chloride and chloroform) were detected in four of these locations; these constituents are common laboratory contaminants; these constituents were also detected in the trip blank sample submitted for groundwater analyses and the reported concentrations are well below applicable RSR soil and groundwater standards. Based on the field screening and analytical results, migration of chlorinated solvents onto the Site from properties located to the south and west of the Site is not likely. Site data suggests that the suspect solvent release is on the Site. The proposed Phase III investigation has been designed to help define the nature and extent of the suspect source area, as required by the RSR document.

Should you have questions, please call me at 632-1500.

Very truly yours,

VANASSE HANGEN BRUSTLIN, INC.

A handwritten signature in black ink that reads "Mike Libertine".

Mike Libertine  
Project Manager

cc: Jim Fuda, VHB  
Marc Richards, VHB  
Alan Hanscom, VHB

Attachments

**VHB**

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**Attachment A**  
**Limitations**



## Limitations

*Former Remington-Rand Facility  
180 Johnson Street  
Middletown, Connecticut*

- This report has been prepared for the sole and exclusive use of the City of Middletown Economic Development Committee (Client) and is subject to and issued in connection with the Agreement and the provisions thereof. Any use or reliance upon information provided in this report, without the specific written authorization of Client and VHB, shall be at User's sole risk.
- The objectives of the assessment described in this report were to observe the physical characteristics of the subject parcels(s) with respect to evidence of past or present use, storage and/or disposal of oil or hazardous materials, as defined in applicable state and federal environmental law and regulations, and to gather information regarding current and past operations and environmental conditions at and in the vicinity of the subject parcel(s).
- No attempt has been made to assess the compliance status of any past or present Owner or Operator of the Site with any federal, state or local laws or regulations.
- The findings, observations and conclusions presented in this report, including the extent of subsurface explorations and other tests, are limited by the scope of services outlined in our Agreement. Furthermore, the assessment has been performed in accordance with generally accepted engineering practices. No other warranty, expressed or implied, is made.
- The assessment presented in this report is based solely upon information gathered to date, including a limited number of subsurface explorations made on the dates indicated. Should further environmental or other relevant information be developed at a later date, Client should bring the information to the attention of VHB as soon as possible. Based upon an evaluation, VHB may modify the report and its conclusions.

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**Attachment B**

**Soil Boring Logs**

# **VHB** | *Soil Boring Report*

**Site Data:**

**Former Remington Rand Facility**  
**180 Johnson Road**  
**Middletown, CT**

Project # 40163

Boring #:

MW-7/B-26

Driller: TDS  
Drill Rig: GeoProbe  
Technique: Direct Push  
Date: 7/31/97  
Weather: Clear, Sunny

Boring Depth 10'  
Depth to Ground Water 6'  
VHB Representative Marc Richards

**PPM = Parts Per Million**

NS = Not Sampled

NSR = No Sample Recovered

NA = Not Applicable

NA = Not Applicable

## **VHB** | *Soil Boring Report*

### **Site Data:**

**Former Remington Rand Facility**  
**180 Johnson Road**  
**Middletown, CT**

Project # 40163

Boring #:

MW-8/B-27

Driller: TDS  
Drill Rig: GeoProbe  
Technique: Direct Push  
Date: 9/15/97  
Weather: Clear, Sunny

Boring Depth 12'  
Depth to Ground Water 5'  
VHB Representative Marc Richards

PPM = Parts Per Million

**NS = Not Sampled**

NSR = No Sample Recovered

NA = Not Applicable

## **VHB** | *Soil Boring Report*

### **Site Data:**

**Former Remington Rand Facility**  
**180 Johnson Road**  
**Middletown, CT**

Project # 40163

Scoring #:

MW-9/B-28

Driller: TDS  
Drill Rig: GeoProbe  
Technique: Direct Push  
Date: 9/15/97  
Weather: Clear, Sunny

Boring Depth 12'  
Depth to Ground Water 5'  
VHB Representative Marc Richards

**PPM = Parts Per Million**

NS = Not Sampled

NSR = No Sample Recovered

NA = Not Applicable

## **VHB** | *Soil Boring Report*

### **Site Data:**

**Former Remington Rand Facility**  
**180 Johnson Road**  
**Middletown, CT**

Project # 40163

Boring #:

MW-10/B-29

Driller: TDS  
Drill Rig: GeoProbe  
Technique: Direct Push  
Date: 9/15/97  
Weather: Clear, Sunny

Boring Depth 12'  
Depth to Ground Water 5'  
VHB Representative Marc Richards

Depth	Sample #	Blow Counts	Recovery (in/in)	PID (PPM)	Field Classification And Remarks
0-1'	S-1	na	48/48	ns	Asphalt, slag, gravel (fill)
1-3'	S-2	na	--	0	Reddish brown silty clay
3-4'	S-3	na	--	0	Reddish brown fine to medium sand
4-6'	S-4	na	48/48	0	Reddish brown fine silty sand, moist
6-8'	S-5	na	--	0	Reddish brown medium to coarse sand, saturated
8-10'	S-6	na	48/48	ns	Reddish brown fine to medium sand, saturated
10-12'	S-7	na	--	ns	Reddish brown silty clay, saturated
					Monitoring well set at 12'
					2 feet of screen
					Sand pack to one foot above screen
					One foot clay bentonite seal

PPM = Parts Per Million

NS = Not Sampled

NSR = No Sample Recovered

NA = Not Applicable

## **VHB**   *Soil Boring Report*

### **Site Data:**

**Former Remington Rand Facility  
180 Johnson Road  
Middletown, CT**

Project # 40163

Boring #:

MW-11/B-30

Driller: TDS  
Drill Rig: GeoProbe  
Technique: Direct Push  
Date: 9/15/97  
Weather: Clear, Sunny

Boring Depth 12'  
Depth to Ground Water 6'  
VHB Representative Marc Richards

PPM = Parts Per Million

NS = Not Sampled

NSR = No Sample Recovered

NA = Not Applicable

## **VHB** | *Soil Boring Report*

### **Site Data:**

**Former Remington Rand Facility**  
**180 Johnson Road**  
**Middletown, CT**

**Project #** 40163

Boring #:

MW-12/B-31

Driller: TDS  
Drill Rig: GeoProbe  
Technique: Direct Push  
Date: 9/15/97  
Weather: Clear, Sunny

Boring Depth 12'  
Depth to Ground Water 7'  
VHB Representative Marc Richards

PPM = Parts Per Million

NS = Not Sampled

NSR = No Sample Recovered

NA = Not Applicable

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**Attachment C**

**Soil and Groundwater Laboratory**

**Analytical Results**



39 Spruce Street • 2nd Floor • East Longmeadow, MA 01028 • FAX 413/525-6405 • TEL 413/525-2332

VANASSE HANGEN BRUSTLIN, INC.  
101 WALNUT STREET  
WATERTOWN, MA 02272  
ATTN: DAVE CARLSON

REPORT DATE: 08/08/97

PURCHASE ORDER NUMBER: 40163  
PROJECT NUMBER: 40163

ANALYTICAL SUMMARY

LIMS BAT #: LIMS-31125  
JOB NUMBER: 31125

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report

PROJECT LOCATION: FORMER REMINGTON RAND FACILITY

FIELD SAMPLE #	LAB ID	MATRIX	SAMPLE DESCRIPTION	TEST
MW-7, 6-8'	97815522	SOIL	MONITORING WELL	8240 - solid (a)
MW-7, 6-8'	97815522	SOIL	MONITORING WELL	8240 - solid (b)

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

AIHA 308                    AIHA ELLAP (LEAD) 6838  
MASSACHUSETTS MA100        MAINE (POTABLE/NON-POTABLE)  
CONNECTICUT PH-0567         VERMONT DOH (LEAD) No. 15036  
NEW YORK ELAP 10899         RHODE ISLAND (LIC. No. 112)  
OHIO (ENVIRO. LEAD) # 10005  
NEW HAMPSHIRE 2516

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document.

*Edward Denson 8/8/97*

SIGNATURE

DATE

Tod Kopyscinski  
Director of Operations

Edward Denson  
Technical Director

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DAVE CARLSON  
VANASSE HANGEN BRUSTLIN, INC.  
101 WALNUT STREET  
WATERTOWN, MA 02272

Purchase Order Number: 40163  
Project Number: 40163

08/08/97  
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Project Location: FORMER REMINGTON RAND FACILITY  
Date Received: 08/01/97

LIMS-BAT #: LIMS-31125  
Job Number: 31125  
Sample Matrix: SOIL

	Sampled: 07/31/97	MONITORING WELL	MW-7, 6-8'	Date	Analyzed	Analyst	MDL	SPEC	LIMIT	P/F
				Units	97B15522			---	---	---
Acetone	mg/kg			ND	08/05/97	WSD	0.080			
Acrolein	mg/kg			ND	08/05/97	WSD	0.100			
Acrylonitrile	mg/kg			ND	08/05/97	WSD	0.038			
Benzene	mg/kg			ND	08/05/97	WSD	0.003			
Bromodichloromethane	mg/kg			ND	08/05/97	WSD	0.002			
Bromomethane	mg/kg			ND	08/05/97	WSD	0.006			
Bromoform	mg/kg			ND	08/05/97	WSD	0.006			
2-Butanone (MEK)	mg/kg			ND	08/05/97	WSD	0.060			
Carbon Disulfide	mg/kg			ND	08/05/97	WSD	0.002			
Carbon Tetrachloride	mg/kg			ND	08/05/97	WSD	0.002			
Chlorobenzene	mg/kg			ND	08/05/97	WSD	0.003			
Chlorodibromomethane	mg/kg			ND	08/05/97	WSD	0.002			
Chloroethane	mg/kg			ND	08/05/97	WSD	0.004			
2-Chloroethylvinylether	mg/kg			ND	08/05/97	WSD	0.048			
Chloroform	mg/kg			ND	08/05/97	WSD	0.004			
Chloromethane	mg/kg			ND	08/05/97	WSD	0.006			
Dibromomethane	mg/kg			ND	08/05/97	WSD	0.006			
1,2-Dichlorobenzene	mg/kg			ND	08/05/97	WSD	0.004			
1,3-Dichlorobenzene	mg/kg			ND	08/05/97	WSD	0.003			
1,4-Dichlorobenzene	mg/kg			ND	08/05/97	WSD	0.004			
c-1,4-Dichloro-2-Butene	mg/kg			ND	08/05/97	WSD	0.012			
t-1,4-Dichloro-2-Butene	mg/kg			ND	08/05/97	WSD	0.010			
Dichlorodifluoromethane	mg/kg			ND	08/05/97	WSD	0.005			
1,1-Dichloroethane	mg/kg			ND	08/05/97	WSD	0.004			
1,2-Dichloroethane	mg/kg			ND	08/05/97	WSD	0.004			
1,1-Dichloroethylene	mg/kg			ND	08/05/97	WSD	0.003			
t-1,2-Dichloroethylene	mg/kg			ND	08/05/97	WSD	0.004			
1,2-Dichloropropane	mg/kg			ND	08/05/97	WSD	0.003			
cis-1,3-Dichloropropene	mg/kg			ND	08/05/97	WSD	0.002			
t-1,3-Dichloropropene	mg/kg			ND	08/05/97	WSD	0.002			
Ethyl Benzene	mg/kg			ND	08/05/97	WSD	0.003			
Ethyl Methacrylate	mg/kg			ND	08/05/97	WSD	0.004			

MDL = Method Detection Limit

ND = Not Detected

BDL = Below Detection Limit

NM = Not Measured

SPEC LIMIT = a client specified, recommended, or  
regulatory level for comparison with data to  
determine PASS (P) or FAIL (F) condition of results.

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08/08/97  
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Purchase Order Number: 40163  
Project Number: 40163

LIMS-BAT #: LIMS-31125  
Job Number: 31125  
Sample Matrix: SOIL

Sampled: 07/31/97

MONITORING WELL

HW-7, 6-8'

	Units	97B15522	Date	Analyzed	Analyst	MDL	SPEC	P/F
						---	-----	---
2-Hexanone	mg/kg	ND	08/05/97	WSD		0.048		
Iodomethane	mg/kg	ND	08/05/97	WSD		0.004		
Methyl tert-Butyl Ether (MTBE)	mg/kg	ND	08/05/97	WSD		0.004		
Methylene Chloride	mg/kg	0.019	08/05/97	WSD		0.015		
4-Methyl-2-Pentanone (MIBK)	mg/kg	ND	08/05/97	WSD		0.044		
Styrene	mg/kg	ND	08/05/97	WSD		0.004		
1,1,2,2-Tetrachloroethane	mg/kg	ND	08/05/97	WSD		0.007		
Tetrachloroethylene	mg/kg	ND	08/05/97	WSD		0.002		
Toluene	mg/kg	ND	08/05/97	WSD		0.004		
1,1,1-Trichloroethane	mg/kg	ND	08/05/97	WSD		0.004		
1,1,2-Trichloroethane	mg/kg	ND	08/05/97	WSD		0.004		
Trichloroethylene	mg/kg	ND	08/05/97	WSD		0.005		
Trichlorofluoromethane	mg/kg	ND	08/05/97	WSD		0.004		
1,2,3-Trichloropropane	mg/kg	ND	08/05/97	WSD		0.006		
Vinyl Acetate	mg/kg	ND	08/05/97	WSD		0.082		
Vinyl Chloride	mg/kg	ND	08/05/97	WSD		0.002		
m-Xylene	mg/kg	ND	08/05/97	WSD		0.006		
o&p-Xylene	mg/kg	ND	08/05/97	WSD		0.002		

## Analytical Method(s):

SW846 8240

SAMPLES ARE CONCENTRATED BY PURGE AND TRAP, FOLLOWED BY GC/MS TARGET  
COMPOUND ANALYSIS.

MDL = Method Detection Limit  
ND = Not Detected

SPEC LIMIT = a client specified, recommended, or  
regulatory level for comparison with data to  
determine PASS (P) or FAIL (F) condition of results.

BDL = Below Detection Limit

NM = Not Measured

## QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates

Sample Matrix Spikes and Matrix Spike Duplicates

BATCH QC: Lab Fortified Blanks and Duplicates

Standard Reference Materials and Duplicates

Method Blanks

Report Date: 08/08/97

Lims Bat #: LIMS-31125

Page 1 of 2

QC Batch Number: GCMS/VOL-1470

Sample Id	Analysis	QC Analysis	Values	Units	Limits
97815522	d4-12-Dichloroethane	Surrogate Recovery	108.040	%	56.000-128.000
	d8-Toluene (8240 dry)	Surrogate Recovery	106.640	%	65.000-113.000
	Bromofluorobenzene	Surrogate Recovery	95.480	%	62.000-137.000
BLANK-09045	Acetone	Blank	<0.080	mg/kg	
	Benzene	Blank	<0.003	mg/kg	
	Carbon Tetrachloride	Blank	<0.002	mg/kg	
	Chloroform	Blank	<0.004	mg/kg	
	1,2-Dichloroethane	Blank	<0.004	mg/kg	
	1,4-Dichlorobenzene	Blank	<0.004	mg/kg	
	Ethyl Benzene	Blank	<0.003	mg/kg	
	2-Butanone (MEK)	Blank	<0.060	mg/kg	
	4-Methyl-2-Pentanone	Blank	<0.044	mg/kg	
	Styrene	Blank	<0.004	mg/kg	
	Tetrachloroethylene	Blank	<0.002	mg/kg	
	Toluene	Blank	<0.004	mg/kg	
	1,1,1-Trichloroethane	Blank	<0.004	mg/kg	
	Trichloroethylene	Blank	<0.005	mg/kg	
	Trichlorofluorometha	Blank	<0.004	mg/kg	
	o&p-Xylene	Blank	<0.002	mg/kg	
	m-Xylene	Blank	<0.006	mg/kg	
	1,2-Dichlorobenzene	Blank	<0.004	mg/kg	
	1,3-Dichlorobenzene	Blank	<0.003	mg/kg	
	1,1-Dichloroethane	Blank	<0.004	mg/kg	
	1,1-Dichlorethylene	Blank	<0.003	mg/kg	
	Methyl tert-Butyl Et	Blank	<0.004	mg/kg	
	t-1,2-Dichloroethyle	Blank	<0.004	mg/kg	
	Vinyl Chloride	Blank	<0.002	mg/kg	
	Methylene Chloride	Blank	<0.015	mg/kg	
	Chlorobenzene	Blank	<0.003	mg/kg	
	Chloromethane	Blank	<0.006	mg/kg	
	Bromomethane	Blank	<0.006	mg/kg	
	Chloroethane	Blank	<0.004	mg/kg	
	cis-1,3-Dichloroprop	Blank	<0.002	mg/kg	
	t-1,3-Dichloropropen	Blank	<0.002	mg/kg	
	Chlorodibromomethane	Blank	<0.002	mg/kg	
	1,1,2-Trichloroethan	Blank	<0.004	mg/kg	
	2-Chloroethylvinylet	Blank	<0.048	mg/kg	
	Bromoform	Blank	<0.006	mg/kg	



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QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates

Sample Matrix Spikes and Matrix Spike Duplicates

BATCH QC: Lab Fortified Blanks and Duplicates

Standard Reference Materials and Duplicates

Method Blanks

Report Date: 08/08/97

Lims Bat #: LIMS-31125

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QC Batch Number: GCMS/VOL-1470

Sample Id	Analysis	QC Analysis	Values	Units	Limits
-----	-----	-----	-----	-----	-----
1,1,2,2-Tetrachloroe	Blank	<0.007	mg/kg		
Dibromomethane	Blank	<0.006	mg/kg		
1,2-Dichloropropane	Blank	<0.003	mg/kg		
1,2,3-Trichloropropa	Blank	<0.006	mg/kg		
Dichlorodifluorometh	Blank	<0.005	mg/kg		
Iodomethane	Blank	<0.004	mg/kg		
Acrolein	Blank	<0.100	mg/kg		
Acrylonitrile	Blank	<0.038	mg/kg		
Carbon Disulfide	Blank	<0.002	mg/kg		
Vinyl Acetate	Blank	<0.082	mg/kg		
2-Hexanone	Blank	<0.048	mg/kg		
t-1,4-Dichloro-2-But	Blank	<0.010	mg/kg		
Ethyl Methacrylate	Blank	<0.004	mg/kg		
c-1,4-Dichloro-2-But	Blank	<0.012	mg/kg		
Bromodichloromethane	Blank	<0.002	mg/kg		





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VANASSE HANGEN BRUSTLIN, INC.  
101 WALNUT STREET  
WATERTOWN, MA 02272  
ATTN: MARC RICHARDS

REPORT DATE: 09/23/97

PURCHASE ORDER NUMBER: 40163  
PROJECT NUMBER: 40163

ANALYTICAL SUMMARY

LIMS BAT #: LIMS-32018  
JOB NUMBER: 32018

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report

PROJECT LOCATION: MIDDLETOWN, CT

FIELD SAMPLE #	LAB ID	MATRIX	SAMPLE DESCRIPTION	TEST
MW-08	97B18833	SOIL	10-12' MONITORING WELL	8240 - solid (a)
MW-08	97B18833	SOIL	10-12' MONITORING WELL	8240 - solid (b)
MW-09	97B18834	SOIL	10-11' MONITORING WELL	8240 - solid (a)
MW-09	97B18834	SOIL	10-11' MONITORING WELL	8240 - solid (b)
MW-10	97B18835	SOIL	9-10' MONITORING WELL	8240 - solid (a)
MW-10	97B18835	SOIL	9-10' MONITORING WELL	8240 - solid (b)
MW-11	97B18836	SOIL	9-11' MONITORING WELL	8240 - solid (a)
MW-11	97B18836	SOIL	9-11' MONITORING WELL	8240 - solid (b)
MW-12	97B18837	SOIL	11-12' MONITORING WELL	8240 - solid (a)
MW-12	97B18837	SOIL	11-12' MONITORING WELL	8240 - solid (b)

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

AIHA 308                    AIHA ELLAP (LEAD) 6838  
MASSACHUSETTS MA100        MAINE (POTABLE/NON-POTABLE)  
CONNECTICUT PH-0567        VERMONT DOH (LEAD) No. 15036  
NEW YORK ELAP 10899        RHODE ISLAND (LIC. No. 112)  
OHIO (ENVIRO. LEAD) # 10005  
NEW HAMPSHIRE 2516

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document.

*Edward Denson 9/23/97*

SIGNATURE

DATE

Tod Kopyscinski  
Director of Operations

Edward Denson  
Technical Director

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MARC RICHARDS  
VANASSE HANGEN BRUSTLIN, INC.  
101 WALNUT STREET  
WATERTOWN, MA 02272

Purchase Order Number: 40163  
Project Number: 40163

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page 1 of 10

Project Location: MIDDLETOWN, CT  
Date Received: 09/15/97

LIMS-BAT #: LIMS-32018  
Job Number: 32018  
Sample Matrix: SOIL

Sampled: 09/15/97  
10-12' MONITORING WELL  
MW-08

	Units	97B18833	Date Analyzed	Analyst	MDL	SPEC LIMIT	P/F
Acetone	mg/kg	ND	09/16/97	WSD	0.080	---	---
Acrolein	mg/kg	ND	09/16/97	WSD	0.100		
Acrylonitrile	mg/kg	ND	09/16/97	WSD	0.038		
Benzene	mg/kg	ND	09/16/97	WSD	0.003		
Bromodichloromethane	mg/kg	ND	09/16/97	WSD	0.002		
Bromomethane	mg/kg	ND	09/16/97	WSD	0.006		
Bromoform	mg/kg	ND	09/16/97	WSD	0.006		
2-Butanone (MEK)	mg/kg	ND	09/16/97	WSD	0.060		
Carbon Disulfide	mg/kg	ND	09/16/97	WSD	0.002		
Carbon Tetrachloride	mg/kg	ND	09/16/97	WSD	0.002		
Chlorobenzene	mg/kg	ND	09/16/97	WSD	0.003		
Chlorodibromomethane	mg/kg	ND	09/16/97	WSD	0.002		
Chloroethane	mg/kg	ND	09/16/97	WSD	0.004		
2-Chloroethylvinylether	mg/kg	ND	09/16/97	WSD	0.048		
Chloroform	mg/kg	ND	09/16/97	WSD	0.004		
Chloromethane	mg/kg	ND	09/16/97	WSD	0.006		
Dibromomethane	mg/kg	ND	09/16/97	WSD	0.006		
1,2-Dichlorobenzene	mg/kg	ND	09/16/97	WSD	0.004		
1,3-Dichlorobenzene	mg/kg	ND	09/16/97	WSD	0.003		
1,4-Dichlorobenzene	mg/kg	ND	09/16/97	WSD	0.004		
c-1,4-Dichloro-2-Butene	mg/kg	ND	09/16/97	WSD	0.012		
t-1,4-Dichloro-2-Butene	mg/kg	ND	09/16/97	WSD	0.010		
Dichlorodifluoromethane	mg/kg	ND	09/16/97	WSD	0.005		
1,1-Dichloroethane	mg/kg	ND	09/16/97	WSD	0.004		
1,2-Dichloroethane	mg/kg	ND	09/16/97	WSD	0.004		
1,1-Dichloroethylene	mg/kg	ND	09/16/97	WSD	0.003		
t-1,2-Dichloroethylene	mg/kg	ND	09/16/97	WSD	0.004		
1,2-Dichloropropane	mg/kg	ND	09/16/97	WSD	0.003		
cis-1,3-Dichloropropene	mg/kg	ND	09/16/97	WSD	0.002		
t-1,3-Dichloropropene	mg/kg	ND	09/16/97	WSD	0.002		
Ethyl Benzene	mg/kg	ND	09/16/97	WSD	0.003		
Ethyl Methacrylate	mg/kg	ND	09/16/97	WSD	0.004		

MDL = Method Detection Limit

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BDL = Below Detection Limit

NM = Not Measured

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09/23/97  
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Purchase Order Number: 40163  
Project Number: 40163

LIMS-BAT #: LIMS-32018  
Job Number: 32018  
Sample Matrix: SOIL

Sampled: 09/15/97  
10-12' MONITORING WELL  
MW-08

	Units	97818833	Date	Analyst	MDL	SPEC	LIMIT	P/F
2-Hexanone	mg/kg	ND	09/16/97	WSD	0.048			
Iodomethane	mg/kg	ND	09/16/97	WSD	0.004			
Methyl tert-Butyl Ether (MTBE)	mg/kg	ND	09/16/97	WSD	0.004			
Methylene Chloride	mg/kg	ND	09/16/97	WSD	0.015			
4-Methyl-2-Pentanone (MIBK)	mg/kg	ND	09/16/97	WSD	0.044			
Styrene	mg/kg	ND	09/16/97	WSD	0.004			
1,1,2,2-Tetrachloroethane	mg/kg	ND	09/16/97	WSD	0.007			
Tetrachloroethylene	mg/kg	ND	09/16/97	WSD	0.002			
Toluene	mg/kg	ND	09/16/97	WSD	0.004			
1,1,1-Trichloroethane	mg/kg	ND	09/16/97	WSD	0.004			
1,1,2-Trichloroethane	mg/kg	ND	09/16/97	WSD	0.004			
Trichloroethylene	mg/kg	ND	09/16/97	WSD	0.005			
Trichlorofluoromethane	mg/kg	ND	09/16/97	WSD	0.004			
1,2,3-Trichloropropane	mg/kg	ND	09/16/97	WSD	0.006			
Vinyl Acetate	mg/kg	ND	09/16/97	WSD	0.082			
Vinyl Chloride	mg/kg	ND	09/16/97	WSD	0.002			
m-Xylene	mg/kg	ND	09/16/97	WSD	0.006			
o&p-Xylene	mg/kg	ND	09/16/97	WSD	0.002			

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Purchase Order Number: 40163  
Project Number: 40163

LIMS-BAT #: LIMS-32018  
Job Number: 32018  
Sample Matrix: SOIL

Sampled: 09/15/97  
10-11' MONITORING WELL  
MW-09

	Units	Date	Analyzed	Analyst	MDL	SPEC LIMIT	P/F
Acetone	mg/kg	BDL	09/16/97	WSD	0.080		
Acrolein	mg/kg	ND	09/16/97	WSD	0.100		
Acrylonitrile	mg/kg	ND	09/16/97	WSD	0.038		
Benzene	mg/kg	ND	09/16/97	WSD	0.003		
Bromodichloromethane	mg/kg	ND	09/16/97	WSD	0.002		
Bromomethane	mg/kg	ND	09/16/97	WSD	0.006		
Bromoform	mg/kg	ND	09/16/97	WSD	0.006		
2-Butanone (MEK)	mg/kg	ND	09/16/97	WSD	0.060		
Carbon Disulfide	mg/kg	ND	09/16/97	WSD	0.002		
Carbon Tetrachloride	mg/kg	ND	09/16/97	WSD	0.002		
Chlorobenzene	mg/kg	ND	09/16/97	WSD	0.003		
Chlorodibromomethane	mg/kg	ND	09/16/97	WSD	0.002		
Chloroethane	mg/kg	ND	09/16/97	WSD	0.004		
2-Chloroethylvinylether	mg/kg	ND	09/16/97	WSD	0.048		
Chloroform	mg/kg	ND	09/16/97	WSD	0.004		
Chloromethane	mg/kg	ND	09/16/97	WSD	0.006		
Dibromomethane	mg/kg	ND	09/16/97	WSD	0.006		
1,2-Dichlorobenzene	mg/kg	ND	09/16/97	WSD	0.004		
1,3-Dichlorobenzene	mg/kg	ND	09/16/97	WSD	0.003		
1,4-Dichlorobenzene	mg/kg	ND	09/16/97	WSD	0.004		
c-1,4-Dichloro-2-Butene	mg/kg	ND	09/16/97	WSD	0.012		
t-1,4-Dichloro-2-Butene	mg/kg	ND	09/16/97	WSD	0.010		
Dichlorodifluoromethane	mg/kg	ND	09/16/97	WSD	0.005		
1,1-Dichloroethane	mg/kg	ND	09/16/97	WSD	0.004		
1,2-Dichloroethane	mg/kg	ND	09/16/97	WSD	0.004		
1,1-Dichloroethylene	mg/kg	ND	09/16/97	WSD	0.003		
t-1,2-Dichloroethylene	mg/kg	ND	09/16/97	WSD	0.004		
1,2-Dichloropropane	mg/kg	ND	09/16/97	WSD	0.003		
cis-1,3-Dichloropropene	mg/kg	ND	09/16/97	WSD	0.002		
t-1,3-Dichloropropene	mg/kg	ND	09/16/97	WSD	0.002		
Ethyl Benzene	mg/kg	ND	09/16/97	WSD	0.003		
Ethyl Methacrylate	mg/kg	ND	09/16/97	WSD	0.004		

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Purchase Order Number: 40163  
Project Number: 40163

LIMS-BAT #: LIMS-32018  
Job Number: 32018  
Sample Matrix: SOIL

Sampled: 09/15/97  
10-11' MONITORING WELL  
MW-09

	Units	97818834	Date	Analyzed	Analyst	MDL	SPEC	LIMIT	P/F
2-Hexanone	mg/kg		ND	09/16/97	WSD	0.048			
Iodomethane	mg/kg		ND	09/16/97	WSD	0.004			
Methyl tert-Butyl Ether (MTBE)	mg/kg		ND	09/16/97	WSD	0.004			
Methylene Chloride	mg/kg		ND	09/16/97	WSD	0.015			
4-Methyl-2-Pentanone (MIBK)	mg/kg		ND	09/16/97	WSD	0.044			
Styrene	mg/kg		ND	09/16/97	WSD	0.004			
1,1,2,2-Tetrachloroethane	mg/kg		ND	09/16/97	WSD	0.007			
Tetrachloroethylene	mg/kg		ND	09/16/97	WSD	0.002			
Toluene	mg/kg		ND	09/16/97	WSD	0.004			
1,1,1-Trichloroethane	mg/kg		ND	09/16/97	WSD	0.004			
1,1,2-Trichloroethane	mg/kg		ND	09/16/97	WSD	0.004			
Trichloroethylene	mg/kg		ND	09/16/97	WSD	0.005			
Trichlorofluoromethane	mg/kg		ND	09/16/97	WSD	0.004			
1,2,3-Trichloropropane	mg/kg		ND	09/16/97	WSD	0.006			
Vinyl Acetate	mg/kg		ND	09/16/97	WSD	0.082			
Vinyl Chloride	mg/kg		ND	09/16/97	WSD	0.002			
m-Xylene	mg/kg		ND	09/16/97	WSD	0.006			
o&p-Xylene	mg/kg		ND	09/16/97	WSD	0.002			

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Purchase Order Number: 40163  
Project Number: 40163

LIMS-BAT #: LIMS-32018  
Job Number: 32018  
Sample Matrix: SOIL

Sampled: 09/15/97  
9-10' MONITORING WELL  
MW-10

	Units	97B18835	Date	Analyzed	Analyst	MDL	SPEC LIMIT	P/F
Acetone	mg/kg	ND	09/16/97	WSD		0.080		
Acrolein	mg/kg	ND	09/16/97	WSD		0.100		
Acrylonitrile	mg/kg	ND	09/16/97	WSD		0.038		
Benzene	mg/kg	ND	09/16/97	WSD		0.003		
Bromodichloromethane	mg/kg	ND	09/16/97	WSD		0.002		
Bromomethane	mg/kg	ND	09/16/97	WSD		0.006		
Bromoform	mg/kg	ND	09/16/97	WSD		0.006		
2-Butanone (MEK)	mg/kg	ND	09/16/97	WSD		0.060		
Carbon Disulfide	mg/kg	ND	09/16/97	WSD		0.002		
Carbon Tetrachloride	mg/kg	ND	09/16/97	WSD		0.002		
Chlorobenzene	mg/kg	ND	09/16/97	WSD		0.003		
Chlorodibromomethane	mg/kg	ND	09/16/97	WSD		0.002		
Chloroethane	mg/kg	ND	09/16/97	WSD		0.004		
2-Chloroethylvinylether	mg/kg	ND	09/16/97	WSD		0.048		
Chloroform	mg/kg	ND	09/16/97	WSD		0.004		
Chloromethane	mg/kg	ND	09/16/97	WSD		0.006		
Dibromomethane	mg/kg	ND	09/16/97	WSD		0.006		
1,2-Dichlorobenzene	mg/kg	ND	09/16/97	WSD		0.004		
1,3-Dichlorobenzene	mg/kg	ND	09/16/97	WSD		0.003		
1,4-Dichlorobenzene	mg/kg	ND	09/16/97	WSD		0.004		
c-1,4-Dichloro-2-Butene	mg/kg	ND	09/16/97	WSD		0.012		
t-1,4-Dichloro-2-Butene	mg/kg	ND	09/16/97	WSD		0.010		
Dichlorodifluoromethane	mg/kg	ND	09/16/97	WSD		0.005		
1,1-Dichloroethane	mg/kg	ND	09/16/97	WSD		0.004		
1,2-Dichloroethane	mg/kg	ND	09/16/97	WSD		0.004		
1,1-Dichloroethylene	mg/kg	ND	09/16/97	WSD		0.003		
t-1,2-Dichloroethylene	mg/kg	ND	09/16/97	WSD		0.004		
1,2-Dichloropropane	mg/kg	ND	09/16/97	WSD		0.003		
cis-1,3-Dichloropropene	mg/kg	ND	09/16/97	WSD		0.002		
t-1,3-Dichloropropene	mg/kg	ND	09/16/97	WSD		0.002		
Ethyl Benzene	mg/kg	ND	09/16/97	WSD		0.003		
Ethyl Methacrylate	mg/kg	ND	09/16/97	WSD		0.004		

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Purchase Order Number: 40163  
Project Number: 40163

LIMS-BAT #: LIMS-32018  
Job Number: 32018  
Sample Matrix: SOIL

Sampled: 09/15/97  
9-10' MONITORING WELL  
MW-10

	Units	97818835	Date	Analyzed	Analyst	MDL	SPEC LIMIT	P/F
2-Hexanone	mg/kg	ND	09/16/97	WSD		0.048		
Iodomethane	mg/kg	ND	09/16/97	WSD		0.004		
Methyl tert-Butyl Ether (MTBE)	mg/kg	ND	09/16/97	WSD		0.004		
Methylene Chloride	mg/kg	ND	09/16/97	WSD		0.015		
4-Methyl-2-Pentanone (MIBK)	mg/kg	ND	09/16/97	WSD		0.044		
Styrene	mg/kg	ND	09/16/97	WSD		0.004		
1,1,2,2-Tetrachloroethane	mg/kg	ND	09/16/97	WSD		0.007		
Tetrachloroethylene	mg/kg	ND	09/16/97	WSD		0.002		
Toluene	mg/kg	ND	09/16/97	WSD		0.004		
1,1,1-Trichloroethane	mg/kg	ND	09/16/97	WSD		0.004		
1,1,2-Trichloroethane	mg/kg	ND	09/16/97	WSD		0.004		
Trichloroethylene	mg/kg	ND	09/16/97	WSD		0.005		
Trichlorofluoromethane	mg/kg	ND	09/16/97	WSD		0.004		
1,2,3-Trichloropropane	mg/kg	ND	09/16/97	WSD		0.006		
Vinyl Acetate	mg/kg	ND	09/16/97	WSD		0.082		
Vinyl Chloride	mg/kg	ND	09/16/97	WSD		0.002		
m-Xylene	mg/kg	ND	09/16/97	WSD		0.006		
o&p-Xylene	mg/kg	ND	09/16/97	WSD		0.002		

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Purchase Order Number: 40163  
Project Number: 40163

LIMS-BAT #: LIMS-32018  
Job Number: 32018  
Sample Matrix: SOIL

Sampled: 09/15/97  
9-11' MONITORING WELL  
MW-11

	Units	97B18836	Date Analyzed	Analyst	MDL	SPEC LIMIT	P/F
Acetone	mg/kg	ND	09/16/97	WSD	0.080		
Acrolein	mg/kg	ND	09/16/97	WSD	0.100		
Acrylonitrile	mg/kg	ND	09/16/97	WSD	0.038		
Benzene	mg/kg	ND	09/16/97	WSD	0.003		
Bromodichloromethane	mg/kg	ND	09/16/97	WSD	0.002		
Bromomethane	mg/kg	ND	09/16/97	WSD	0.006		
Bromoform	mg/kg	ND	09/16/97	WSD	0.006		
2-Butanone (MEK)	mg/kg	ND	09/16/97	WSD	0.060		
Carbon Disulfide	mg/kg	ND	09/16/97	WSD	0.002		
Carbon Tetrachloride	mg/kg	ND	09/16/97	WSD	0.002		
Chlorobenzene	mg/kg	ND	09/16/97	WSD	0.003		
Chlorodibromomethane	mg/kg	ND	09/16/97	WSD	0.002		
Chloroethane	mg/kg	ND	09/16/97	WSD	0.004		
2-Chloroethylvinylether	mg/kg	ND	09/16/97	WSD	0.048		
Chloroform	mg/kg	ND	09/16/97	WSD	0.004		
Chloromethane	mg/kg	ND	09/16/97	WSD	0.006		
Dibromomethane	mg/kg	ND	09/16/97	WSD	0.006		
1,2-Dichlorobenzene	mg/kg	ND	09/16/97	WSD	0.004		
1,3-Dichlorobenzene	mg/kg	ND	09/16/97	WSD	0.003		
1,4-Dichlorobenzene	mg/kg	ND	09/16/97	WSD	0.004		
c-1,4-Dichloro-2-Butene	mg/kg	ND	09/16/97	WSD	0.012		
t-1,4-Dichloro-2-Butene	mg/kg	ND	09/16/97	WSD	0.010		
Dichlorodifluoromethane	mg/kg	ND	09/16/97	WSD	0.005		
1,1-Dichloroethane	mg/kg	ND	09/16/97	WSD	0.004		
1,2-Dichloroethane	mg/kg	ND	09/16/97	WSD	0.004		
1,1-Dichloroethylene	mg/kg	ND	09/16/97	WSD	0.003		
t-1,2-Dichloroethylene	mg/kg	ND	09/16/97	WSD	0.004		
1,2-Dichloropropane	mg/kg	ND	09/16/97	WSD	0.003		
cis-1,3-Dichloropropene	mg/kg	ND	09/16/97	WSD	0.002		
t-1,3-Dichloropropene	mg/kg	ND	09/16/97	WSD	0.002		
Ethyl Benzene	mg/kg	ND	09/16/97	WSD	0.003		
Ethyl Methacrylate	mg/kg	ND	09/16/97	WSD	0.004		

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Purchase Order Number: 40163  
Project Number: 40163

LIMS-BAT #: LIMS-32018  
Job Number: 32018  
Sample Matrix: SOIL

Sampled: 09/15/97  
9-11' MONITORING WELL  
MW-11

	Units	97B18836	Date Analyzed	Analyst	MDL	SPEC LIMIT	P/F
2-Hexanone	mg/kg	ND	09/16/97	WSD	0.048	---	---
Iodomethane	mg/kg	ND	09/16/97	WSD	0.004	---	---
Methyl tert-Butyl Ether (MTBE)	mg/kg	ND	09/16/97	WSD	0.004	---	---
Methylene Chloride	mg/kg	ND	09/16/97	WSD	0.015	---	---
4-Methyl-2-Pentanone (MIBK)	mg/kg	ND	09/16/97	WSD	0.044	---	---
Styrene	mg/kg	ND	09/16/97	WSD	0.004	---	---
1,1,2,2-Tetrachloroethane	mg/kg	ND	09/16/97	WSD	0.007	---	---
Tetrachloroethylene	mg/kg	ND	09/16/97	WSD	0.002	---	---
Toluene	mg/kg	ND	09/16/97	WSD	0.004	---	---
1,1,1-Trichloroethane	mg/kg	ND	09/16/97	WSD	0.004	---	---
1,1,2-Trichloroethane	mg/kg	ND	09/16/97	WSD	0.004	---	---
Trichloroethylene	mg/kg	ND	09/16/97	WSD	0.005	---	---
Trichlorofluoromethane	mg/kg	ND	09/16/97	WSD	0.004	---	---
1,2,3-Trichloropropane	mg/kg	ND	09/16/97	WSD	0.006	---	---
Vinyl Acetate	mg/kg	ND	09/16/97	WSD	0.082	---	---
Vinyl Chloride	mg/kg	ND	09/16/97	WSD	0.002	---	---
m-Xylene	mg/kg	ND	09/16/97	WSD	0.006	---	---
o&p-Xylene	mg/kg	ND	09/16/97	WSD	0.002	---	---

MDL = Method Detection Limit  
ND = Not Detected  
BDL = Below Detection Limit  
NM = Not Measured

SPEC LIMIT = a client specified, recommended, or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.

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Purchase Order Number: 40163

Project Number: 40163

LIMS-BAT #: LIMS-32018  
Job Number: 32018  
Sample Matrix: SOIL

Sampled: 09/15/97  
11-12' MONITORING WELL  
HW-12

	Units	97818837	Date	Analyzed	Analyst	MDL	SPEC LIMIT	P/F
Acetone	mg/kg		ND	09/16/97	WSD	0.080		
Acrolein	mg/kg		ND	09/16/97	WSD	0.100		
Acrylonitrile	mg/kg		ND	09/16/97	WSD	0.038		
Benzene	mg/kg		ND	09/16/97	WSD	0.003		
Bromodichloromethane	mg/kg		ND	09/16/97	WSD	0.002		
Bromomethane	mg/kg		ND	09/16/97	WSD	0.006		
Bromoform	mg/kg		ND	09/16/97	WSD	0.006		
2-Butanone (MEK)	mg/kg		ND	09/16/97	WSD	0.060		
Carbon Disulfide	mg/kg		ND	09/16/97	WSD	0.002		
Carbon Tetrachloride	mg/kg		ND	09/16/97	WSD	0.002		
Chlorobenzene	mg/kg		ND	09/16/97	WSD	0.003		
Chlorodibromomethane	mg/kg		ND	09/16/97	WSD	0.002		
Chloroethane	mg/kg		ND	09/16/97	WSD	0.004		
2-Chloroethylvinylether	mg/kg		ND	09/16/97	WSD	0.048		
Chloroform	mg/kg		ND	09/16/97	WSD	0.004		
Chloromethane	mg/kg		ND	09/16/97	WSD	0.006		
Dibromomethane	mg/kg		ND	09/16/97	WSD	0.006		
1,2-Dichlorobenzene	mg/kg		ND	09/16/97	WSD	0.004		
1,3-Dichlorobenzene	mg/kg		ND	09/16/97	WSD	0.003		
1,4-Dichlorobenzene	mg/kg		ND	09/16/97	WSD	0.004		
c-1,4-Dichloro-2-Butene	mg/kg		ND	09/16/97	WSD	0.012		
t-1,4-Dichloro-2-Butene	mg/kg		ND	09/16/97	WSD	0.010		
Dichlorodifluoromethane	mg/kg		ND	09/16/97	WSD	0.005		
1,1-Dichloroethane	mg/kg		ND	09/16/97	WSD	0.004		
1,2-Dichloroethane	mg/kg		ND	09/16/97	WSD	0.004		
1,1-Dichloroethylene	mg/kg		ND	09/16/97	WSD	0.003		
t-1,2-Dichloroethylene	mg/kg		ND	09/16/97	WSD	0.004		
1,2-Dichloropropane	mg/kg		ND	09/16/97	WSD	0.003		
cis-1,3-Dichloropropene	mg/kg		ND	09/16/97	WSD	0.002		
t-1,3-Dichloropropene	mg/kg		ND	09/16/97	WSD	0.002		
Ethyl Benzene	mg/kg		ND	09/16/97	WSD	0.003		
Ethyl Methacrylate	mg/kg		ND	09/16/97	WSD	0.004		

MDL = Method Detection Limit

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BDL = Below Detection Limit

NM = Not Measured

SPEC LIMIT = a client specified, recommended, or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.

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09/23/97  
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Purchase Order Number: 40163  
Project Number: 40163

LIMS-BAT #: LIMS-32018  
Job Number: 32018  
Sample Matrix: SOIL

Sampled: 09/15/97  
11-12' MONITORING WELL  
MW-12

	Units	97B18837	Date Analyzed	Analyst	MDL	SPEC LIMIT	P/F
2-Hexanone	mg/kg	ND	09/16/97	WSD	0.048	---	---
Iodomethane	mg/kg	ND	09/16/97	WSD	0.004	---	---
Methyl tert-Butyl Ether (MTBE)	mg/kg	ND	09/16/97	WSD	0.004	---	---
Methylene Chloride	mg/kg	ND	09/16/97	WSD	0.015	---	---
4-Methyl-2-Pentanone (MIBK)	mg/kg	ND	09/16/97	WSD	0.044	---	---
Styrene	mg/kg	ND	09/16/97	WSD	0.004	---	---
1,1,2,2-Tetrachloroethane	mg/kg	ND	09/16/97	WSD	0.007	---	---
Tetrachloroethylene	mg/kg	ND	09/16/97	WSD	0.002	---	---
Toluene	mg/kg	ND	09/16/97	WSD	0.004	---	---
1,1,1-Trichloroethane	mg/kg	ND	09/16/97	WSD	0.004	---	---
1,1,2-Trichloroethane	mg/kg	ND	09/16/97	WSD	0.004	---	---
Trichloroethylene	mg/kg	ND	09/16/97	WSD	0.005	---	---
Trichlorofluoromethane	mg/kg	ND	09/16/97	WSD	0.004	---	---
1,2,3-Trichloropropane	mg/kg	ND	09/16/97	WSD	0.006	---	---
Vinyl Acetate	mg/kg	ND	09/16/97	WSD	0.082	---	---
Vinyl Chloride	mg/kg	ND	09/16/97	WSD	0.002	---	---
m-Xylene	mg/kg	ND	09/16/97	WSD	0.006	---	---
o&p-Xylene	mg/kg	ND	09/16/97	WSD	0.002	---	---

## Analytical Method(s):

SW846 8240

SAMPLES ARE CONCENTRATED BY PURGE AND TRAP, FOLLOWED BY GC/MS TARGET  
COMPOUND ANALYSIS.

MDL = Method Detection Limit  
ND = Not Detected  
BDL = Below Detection Limit  
NM = Not Measured

SPEC LIMIT = a client specified, recommended, or  
regulatory level for comparison with data to  
determine PASS (P) or FAIL (F) condition of results.

## QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates

Sample Matrix Spikes and Matrix Spike Duplicates

BATCH QC: Lab Fortified Blanks and Duplicates

Standard Reference Materials and Duplicates

Method Blanks

Report Date: 09/23/97

Lims Bat #: LIMS-32018

Page 1 of 2

QC Batch Number: GCMS/VOL-1532

Sample Id	Analysis	QC Analysis	Values	Units	Limits
97818833	d4-12-Dichloroethane	Surrogate Recovery	131.600	%	56.000-128.000
97818834	d8-Toluene (8240 dry)	Surrogate Recovery	103.200	%	65.000-113.000
	Bromofluororbenzene	Surrogate Recovery	98.000	%	62.000-137.000
	d4-12-Dichloroethane	Surrogate Recovery	122.800	%	56.000-128.000
97818835	d8-Toluene (8240 dry)	Surrogate Recovery	108.000	%	65.000-113.000
	Bromofluororbenzene	Surrogate Recovery	102.000	%	62.000-137.000
	d4-12-Dichloroethane	Surrogate Recovery	118.000	%	56.000-128.000
97818836	d8-Toluene (8240 dry)	Surrogate Recovery	107.200	%	65.000-113.000
	Bromofluororbenzene	Surrogate Recovery	102.400	%	62.000-137.000
	d4-12-Dichloroethane	Surrogate Recovery	120.000	%	56.000-128.000
97818837	d8-Toluene (8240 dry)	Surrogate Recovery	109.200	%	65.000-113.000
	Bromofluororbenzene	Surrogate Recovery	98.000	%	62.000-137.000
	d4-12-Dichloroethane	Surrogate Recovery	121.200	%	56.000-128.000
BLANK-09533	d8-Toluene (8240 dry)	Surrogate Recovery	106.800	%	65.000-113.000
	Bromofluororbenzene	Surrogate Recovery	94.400	%	62.000-137.000
	Acetone	Blank	<0.080	mg/kg	
	Benzene	Blank	<0.003	mg/kg	
	Carbon Tetrachloride	Blank	<0.002	mg/kg	
	Chloroform	Blank	<0.004	mg/kg	
	1,2-Dichloroethane	Blank	<0.004	mg/kg	
	1,4-Dichlorobenzene	Blank	<0.004	mg/kg	
	Ethyl Benzene	Blank	<0.003	mg/kg	
	2-Butanone (MEK)	Blank	<0.060	mg/kg	
	4-Methyl-2-Pentanone	Blank	<0.044	mg/kg	
	Styrene	Blank	<0.004	mg/kg	
	Tetrachloroethylene	Blank	<0.002	mg/kg	
	Toluene	Blank	<0.004	mg/kg	
	1,1,1-Trichloroethane	Blank	<0.004	mg/kg	
	Trichloroethylene	Blank	<0.005	mg/kg	
	Trichlorofluoromethane	Blank	<0.004	mg/kg	
	o&p-Xylene	Blank	<0.002	mg/kg	
	m-Xylene	Blank	<0.006	mg/kg	
	1,2-Dichlorobenzene	Blank	<0.004	mg/kg	
	1,3-Dichlorobenzene	Blank	<0.003	mg/kg	
	1,1-Dichloroethane	Blank	<0.004	mg/kg	
	1,1-Dichloroethylene	Blank	<0.003	mg/kg	
	Methyl tert-Butyl Et	Blank	<0.004	mg/kg	
	t-1,2-Dichloroethylene	Blank	<0.004	mg/kg	



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QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates

Sample Matrix Spikes and Matrix Spike Duplicates

BATCH QC: Lab Fortified Blanks and Duplicates

Standard Reference Materials and Duplicates

Method Blanks

Report Date: 09/23/97

Lims Bat #: LIMS-32018

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QC Batch Number: GCMS/VOL-1532

Sample Id	Analysis	QC Analysis	Values	Units	Limits
	Vinyl Chloride	Blank	<0.002	mg/kg	
	Methylene Chloride	Blank	<0.015	mg/kg	
	Chlorobenzene	Blank	<0.003	mg/kg	
	Chloromethane	Blank	<0.006	mg/kg	
	Bromomethane	Blank	<0.006	mg/kg	
	Chloroethane	Blank	<0.004	mg/kg	
	cis-1,3-Dichloroprop	Blank	<0.002	mg/kg	
	t-1,3-Dichloropropen	Blank	<0.002	mg/kg	
	Chlorodibromomethane	Blank	<0.002	mg/kg	
	1,1,2-Trichloroethan	Blank	<0.004	mg/kg	
	2-Chloroethylvinylet	Blank	<0.048	mg/kg	
	Bromoform	Blank	<0.006	mg/kg	
	1,1,2,2-Tetrachloroe	Blank	<0.007	mg/kg	
	Dibronomethane	Blank	<0.006	mg/kg	
	1,2-Dichloropropane	Blank	<0.003	mg/kg	
	1,2,3-Trichloropropa	Blank	<0.006	mg/kg	
	Dichlorodifluorometh	Blank	<0.005	mg/kg	
	Iodomethane	Blank	<0.004	mg/kg	
	Acrolein	Blank	<0.100	mg/kg	
	Acrylonitrile	Blank	<0.038	mg/kg	
	Carbon Disulfide	Blank	<0.002	mg/kg	
	Vinyl Acetate	Blank	<0.082	mg/kg	
	2-Hexanone	Blank	<0.048	mg/kg	
	t-1,4-Dichloro-2-But	Blank	<0.010	mg/kg	
	Ethyl Methacrylate	Blank	<0.004	mg/kg	
	c-1,4-Dichloro-2-But	Blank	<0.012	mg/kg	
	Bromodichloromethane	Blank	<0.002	mg/kg	





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VANASSE HANGEN BRUSTLIN, INC.

101 WALNUT STREET

WATERTOWN, MA 02272

ATTN: MARC RICHARDS

REPORT DATE: 09/29/97

PURCHASE ORDER NUMBER: 40163  
PROJECT NUMBER: 40163

ANALYTICAL SUMMARY

LIMS BAT #: LIMS-32164  
JOB NUMBER: 32164

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report

PROJECT LOCATION: MIDDLETOWN, CT

FIELD SAMPLE #	LAB ID	MATRIX	SAMPLE DESCRIPTION	TEST
MW-10	97B19421	GRND WATER	MONITORING WELL	8240 - water
MW-10	97B19421	GRND WATER	MONITORING WELL	8240 - water (b)
MW-11	97B19422	GRND WATER	MONITORING WELL	8240 - water
MW-11	97B19422	GRND WATER	MONITORING WELL	8240 - water (b)
MW-12	97B19423	GRND WATER	MONITORING WELL	8240 - water
MW-12	97B19423	GRND WATER	MONITORING WELL	8240 - water (b)
MW-7	97B19418	GRND WATER	MONITORING WELL	8240 - water
MW-7	97B19418	GRND WATER	MONITORING WELL	8240 - water (b)
MW-8	97B19419	GRND WATER	MONITORING WELL	8240 - water
MW-8	97B19419	GRND WATER	MONITORING WELL	8240 - water (b)
MW-9	97B19420	GRND WATER	MONITORING WELL	8240 - water
MW-9	97B19420	GRND WATER	MONITORING WELL	8240 - water (b)
TRIP BLANK	97B19424	GRND WATER	MONITORING WELL	8240 - water
TRIP BLANK	97B19424	GRND WATER	MONITORING WELL	8240 - water (b)

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

AIHA 308 AIHA ELLAP (LEAD) 6838  
MASSACHUSETTS MA100 MAINE (POTABLE/NON-POTABLE)  
CONNECTICUT PH-0567 VERMONT DOH (LEAD) No. 15036  
NEW YORK ELAP 10899 RHODE ISLAND (LIC. No. 112)  
OHIO (ENVIRO. LEAD) # 10005  
NEW HAMPSHIRE 2516

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document.

Edward Denson 9/29/97  
SIGNATURE

Tod Kopyscinski  
Director of Operations

DATE

Edward Denson  
Technical Director

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MARC RICHARDS  
VANASSE HANGEN BRUSTLIN, INC.  
101 WALNUT STREET  
WATERTOWN, MA 02272

Purchase Order Number: 40163  
Project Number: 40163

09/29/97  
page 1 of 14

Project Location: MIDDLETOWN, CT  
Date Received: 09/23/97

LIMS-BAT #: LIMS-32164  
Job Number: 32164  
Sample Matrix: GRND WATER

Sampled: 09/23/97  
MONITORING WELL  
MW-10

	Units	Date	Analyzed	Analyst	MDL	SPEC	P/F
		97B19421			---	---	---
Acetone	ug/l	ND	09/23/97	WSD	16.1		
Acrolein	ug/l	ND	09/23/97	WSD	20.0		
Acrylonitrile	ug/l	ND	09/23/97	WSD	7.6		
Benzene	ug/l	ND	09/23/97	WSD	0.6		
Bromodichloromethane	ug/l	ND	09/23/97	WSD	0.4		
Bromomethane	ug/l	ND	09/23/97	WSD	1.2		
Bromoform	ug/l	ND	09/23/97	WSD	1.2		
2-Butanone (MEK)	ug/l	ND	09/23/97	WSD	12.0		
Carbon Disulfide	ug/l	ND	09/23/97	WSD	0.5		
Carbon Tetrachloride	ug/l	ND	09/23/97	WSD	0.5		
Chlorobenzene	ug/l	ND	09/23/97	WSD	0.6		
Chlorodibromomethane	ug/l	ND	09/23/97	WSD	0.5		
Chloroethane	ug/l	ND	09/23/97	WSD	0.8		
2-Chloroethylvinylether	ug/l	ND	09/23/97	WSD	9.6		
Chloroform	ug/l	ND	09/23/97	WSD	0.8		
Chloromethane	ug/l	ND	09/23/97	WSD	1.2		
Dibromomethane	ug/l	ND	09/23/97	WSD	1.1		
1,2-Dichlorobenzene	ug/l	ND	09/23/97	WSD	0.8		
1,3-Dichlorobenzene	ug/l	ND	09/23/97	WSD	0.6		
1,4-Dichlorobenzene	ug/l	ND	09/23/97	WSD	0.8		
c-1,4-Dichloro-2-Butene	ug/l	ND	09/23/97	WSD	2.4		
t-1,4-Dichloro-2-Butene	ug/l	ND	09/23/97	WSD	2.1		
Dichlorodifluoromethane	ug/l	ND	09/23/97	WSD	1.0		
1,1-Dichloroethane	ug/l	ND	09/23/97	WSD	0.7		
1,2-Dichloroethane	ug/l	ND	09/23/97	WSD	0.9		
1,1-Dichloroethylene	ug/l	ND	09/23/97	WSD	0.6		
cis-1,2-Dichloroethylene	ug/l	ND	09/23/97	WSD	0.5		
t-1,2-Dichloroethylene	ug/l	ND	09/23/97	WSD	0.8		
1,2-Dichloropropane	ug/l	ND	09/23/97	WSD	0.6		
cis-1,3-Dichloropropene	ug/l	ND	09/23/97	WSD	0.5		
t-1,3-Dichloropropene	ug/l	ND	09/23/97	WSD	0.4		
Ethyl Benzene	ug/l	ND	09/23/97	WSD	0.6		

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ND = Not Detected  
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09/29/97

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Purchase Order Number: 40163

Project Number: 40163

LIMS-BAT #: LIMS-32164

Job Number: 32164

Sample Matrix: GRND WATER

Sampled: 09/23/97

MONITORING WELL

MW-10

	Units	97819421	Date	Analyzed	Analyst	MDL	SPEC	P/F
Ethyl Methacrylate	ug/l		ND	09/23/97	WSD	0.8		
2-Hexanone	ug/l		ND	09/23/97	WSD	9.7		
Iodomethane	ug/l		ND	09/23/97	WSD	0.8		
Methyl tert-Butyl Ether (MTBE)	ug/l		ND	09/23/97	WSD	0.8		
Methylene Chloride	ug/l		ND	09/23/97	WSD	3.0		
4-Methyl-2-Pentanone (MIBK)	ug/l		ND	09/23/97	WSD	8.8		
Styrene	ug/l		ND	09/23/97	WSD	0.7		
1,1,2,2-Tetrachloroethane	ug/l		ND	09/23/97	WSD	1.4		
Tetrachloroethylene	ug/l		ND	09/23/97	WSD	0.4		
Toluene	ug/l		ND	09/23/97	WSD	0.7		
1,1,1-Trichloroethane	ug/l		ND	09/23/97	WSD	0.9		
1,1,2-Trichloroethane	ug/l		ND	09/23/97	WSD	0.7		
Trichloroethylene	ug/l		ND	09/23/97	WSD	1.0		
Trichlorofluoromethane	ug/l		ND	09/23/97	WSD	0.7		
1,2,3-Trichloropropane	ug/l		ND	09/23/97	WSD	1.3		
Vinyl Acetate	ug/l		ND	09/23/97	WSD	16.4		
Vinyl Chloride	ug/l		ND	09/23/97	WSD	0.3		
m-Xylene	ug/l		ND	09/23/97	WSD	1.3		
o&p-Xylene	ug/l		ND	09/23/97	WSD	0.5		

MDL = Method Detection Limit

ND = Not Detected

BDL = Below Detection Limit

NM = Not Measured

SPEC LIMIT = a client specified, recommended, or  
regulatory level for comparison with data to  
determine PASS (P) or FAIL (F) condition of results.

Purchase Order Number: 40163  
Project Number: 40163

LIMS-BAT #: LIMS-32164  
Job Number: 32164  
Sample Matrix: GRND WATER

Sampled: 09/23/97

MONITORING WELL

MW-11

	Units	Date	Analyzed	Analyst	MDL	SPEC	P/F
		97B19422			---	---	---
Acetone	ug/l	ND	09/23/97	WSD	16.1		
Acrolein	ug/l	ND	09/23/97	WSD	20.0		
Acrylonitrile	ug/l	ND	09/23/97	WSD	7.6		
Benzene	ug/l	ND	09/23/97	WSD	0.6		
Bromodichloromethane	ug/l	ND	09/23/97	WSD	0.4		
Bromomethane	ug/l	ND	09/23/97	WSD	1.2		
Bromoform	ug/l	ND	09/23/97	WSD	1.2		
2-Butanone (MEK)	ug/l	ND	09/23/97	WSD	12.0		
Carbon Disulfide	ug/l	ND	09/23/97	WSD	0.5		
Carbon Tetrachloride	ug/l	ND	09/23/97	WSD	0.5		
Chlorobenzene	ug/l	ND	09/23/97	WSD	0.6		
Chlorodibromomethane	ug/l	ND	09/23/97	WSD	0.5		
Chloroethane	ug/l	ND	09/23/97	WSD	0.8		
2-Chloroethylvinylether	ug/l	ND	09/23/97	WSD	9.6		
Chloroform	ug/l	ND	09/23/97	WSD	0.8		
Chloromethane	ug/l	ND	09/23/97	WSD	1.2		
Dibromomethane	ug/l	ND	09/23/97	WSD	1.1		
1,2-Dichlorobenzene	ug/l	ND	09/23/97	WSD	0.8		
1,3-Dichlorobenzene	ug/l	ND	09/23/97	WSD	0.6		
1,4-Dichlorobenzene	ug/l	ND	09/23/97	WSD	0.8		
c-1,4-Dichloro-2-Butene	ug/l	ND	09/23/97	WSD	2.4		
t-1,4-Dichloro-2-Butene	ug/l	ND	09/23/97	WSD	2.1		
Dichlorodifluoromethane	ug/l	ND	09/23/97	WSD	1.0		
1,1-Dichloroethane	ug/l	ND	09/23/97	WSD	0.7		
1,2-Dichloroethane	ug/l	ND	09/23/97	WSD	0.9		
1,1-Dichloroethylene	ug/l	ND	09/23/97	WSD	0.6		
cis-1,2-Dichloroethylene	ug/l	ND	09/23/97	WSD	0.5		
t-1,2-Dichloroethylene	ug/l	ND	09/23/97	WSD	0.8		
1,2-Dichloropropane	ug/l	ND	09/23/97	WSD	0.6		
cis-1,3-Dichloropropene	ug/l	ND	09/23/97	WSD	0.5		
t-1,3-Dichloropropene	ug/l	ND	09/23/97	WSD	0.4		
Ethyl Benzene	ug/l	ND	09/23/97	WSD	0.6		

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Purchase Order Number: 40163  
Project Number: 40163

LIMS-BAT #: LIMS-32164  
Job Number: 32164  
Sample Matrix: GRND WATER

Sampled: 09/23/97

MONITORING WELL

MW-11

	Units	Date	Analyzed	Analyst	MDL	SPEC LIMIT	P/F
Ethyl Methacrylate	ug/l	ND	09/23/97	WSD	0.8		
2-Hexanone	ug/l	ND	09/23/97	WSD	9.7		
Iodomethane	ug/l	ND	09/23/97	WSD	0.8		
Methyl tert-Butyl Ether (MTBE)	ug/l	ND	09/23/97	WSD	0.8		
Methylene Chloride	ug/l	ND	09/23/97	WSD	3.0		
4-Methyl-2-Pentanone (MIBK)	ug/l	ND	09/23/97	WSD	8.8		
Styrene	ug/l	ND	09/23/97	WSD	0.7		
1,1,2,2-Tetrachloroethane	ug/l	ND	09/23/97	WSD	1.4		
Tetrachloroethylene	ug/l	ND	09/23/97	WSD	0.4		
Toluene	ug/l	ND	09/23/97	WSD	0.7		
1,1,1-Trichloroethane	ug/l	ND	09/23/97	WSD	0.9		
1,1,2-Trichloroethane	ug/l	ND	09/23/97	WSD	0.7		
Trichloroethylene	ug/l	ND	09/23/97	WSD	1.0		
Trichlorofluoromethane	ug/l	ND	09/23/97	WSD	0.7		
1,2,3-Trichloropropane	ug/l	ND	09/23/97	WSD	1.3		
Vinyl Acetate	ug/l	ND	09/23/97	WSD	16.4		
Vinyl Chloride	ug/l	ND	09/23/97	WSD	0.3		
m-Xylene	ug/l	ND	09/23/97	WSD	1.3		
o&p-Xylene	ug/l	ND	09/23/97	WSD	0.5		

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Purchase Order Number: 40163  
Project Number: 40163

LIMS-BAT #: LIMS-32164  
Job Number: 32164  
Sample Matrix: GRND WATER

Sampled: 09/23/97  
MONITORING WELL  
MW-12

	Units	Date	Analyzed	Analyst	MDL	SPEC	P/F
		97B19423			MDL	LIMIT	
Acetone	ug/l		ND	09/23/97	WSD	16.1	
Acrolein	ug/l		ND	09/23/97	WSD	20.0	
Acrylonitrile	ug/l		ND	09/23/97	WSD	7.6	
Benzene	ug/l		ND	09/23/97	WSD	0.6	
Bromodichloromethane	ug/l		ND	09/23/97	WSD	0.4	
Bromomethane	ug/l		ND	09/23/97	WSD	1.2	
Bromoform	ug/l		ND	09/23/97	WSD	1.2	
2-Butanone (MEK)	ug/l		ND	09/23/97	WSD	12.0	
Carbon Disulfide	ug/l		ND	09/23/97	WSD	0.5	
Carbon Tetrachloride	ug/l		ND	09/23/97	WSD	0.5	
Chlorobenzene	ug/l		ND	09/23/97	WSD	0.6	
Chlorodibromomethane	ug/l		ND	09/23/97	WSD	0.5	
Chloroethane	ug/l		ND	09/23/97	WSD	0.8	
2-Chloroethylvinylether	ug/l		ND	09/23/97	WSD	9.6	
Chloroform	ug/l		BDL	09/23/97	WSD	0.8	
Chloromethane	ug/l		ND	09/23/97	WSD	1.2	
Dibromomethane	ug/l		ND	09/23/97	WSD	1.1	
1,2-Dichlorobenzene	ug/l		ND	09/23/97	WSD	0.8	
1,3-Dichlorobenzene	ug/l		ND	09/23/97	WSD	0.6	
1,4-Dichlorobenzene	ug/l		ND	09/23/97	WSD	0.8	
c-1,4-Dichloro-2-Butene	ug/l		ND	09/23/97	WSD	2.4	
t-1,4-Dichloro-2-Butene	ug/l		ND	09/23/97	WSD	2.1	
Dichlorodifluoromethane	ug/l		ND	09/23/97	WSD	1.0	
1,1-Dichloroethane	ug/l		ND	09/23/97	WSD	0.7	
1,2-Dichloroethane	ug/l		ND	09/23/97	WSD	0.9	
1,1-Dichloroethylene	ug/l		ND	09/23/97	WSD	0.6	
cis-1,2-Dichloroethylene	ug/l		ND	09/23/97	WSD	0.5	
t-1,2-Dichloroethylene	ug/l		ND	09/23/97	WSD	0.8	
1,2-Dichloropropane	ug/l		ND	09/23/97	WSD	0.6	
cis-1,3-Dichloropropene	ug/l		ND	09/23/97	WSD	0.5	
t-1,3-Dichloropropene	ug/l		ND	09/23/97	WSD	0.4	
Ethyl Benzene	ug/l		ND	09/23/97	WSD	0.6	

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Purchase Order Number: 40163  
Project Number: 40163

LIMS-BAT #: LIMS-32164  
Job Number: 32164  
Sample Matrix: GRND WATER

Sampled: 09/23/97  
MONITORING WELL  
MW-12

	Units	97B19423	Date	Analyzed	Analyst	MDL	SPEC	P/F
Ethyl Methacrylate	ug/l		ND	09/23/97	WSD	0.8		
2-Hexanone	ug/l		ND	09/23/97	WSD	9.7		
Iodomethane	ug/l		ND	09/23/97	WSD	0.8		
Methyl tert-Butyl Ether (MTBE)	ug/l		ND	09/23/97	WSD	0.8		
Methylene Chloride	ug/l	10.7	09/23/97	WSD		3.0		
4-Methyl-2-Pentanone (MIBK)	ug/l		ND	09/23/97	WSD	8.8		
Styrene	ug/l		ND	09/23/97	WSD	0.7		
1,1,2,2-Tetrachloroethane	ug/l		ND	09/23/97	WSD	1.4		
Tetrachloroethylene	ug/l		ND	09/23/97	WSD	0.4		
Toluene	ug/l		ND	09/23/97	WSD	0.7		
1,1,1-Trichloroethane	ug/l		ND	09/23/97	WSD	0.9		
1,1,2-Trichloroethane	ug/l		ND	09/23/97	WSD	0.7		
Trichloroethylene	ug/l		ND	09/23/97	WSD	1.0		
Trichlorofluoromethane	ug/l		ND	09/23/97	WSD	0.7		
1,2,3-Trichloropropane	ug/l		ND	09/23/97	WSD	1.3		
Vinyl Acetate	ug/l		ND	09/23/97	WSD	16.4		
Vinyl Chloride	ug/l		ND	09/23/97	WSD	0.3		
m-Xylene	ug/l		ND	09/23/97	WSD	1.3		
o&p-Xylene	ug/l		ND	09/23/97	WSD	0.5		

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Purchase Order Number: 40163  
Project Number: 40163

LIMS-BAT #: LIMS-32164  
Job Number: 32164  
Sample Matrix: GRND WATER

Sampled: 09/23/97

MONITORING WELL  
MW-7

	Units	97819418	Date	Analyzed	Analyst	MDL	SPEC	P/F
Acetone	ug/l	BDL	09/23/97	WSD		16.1		
Acrolein	ug/l	ND	09/23/97	WSD		20.0		
Acrylonitrile	ug/l	ND	09/23/97	WSD		7.6		
Benzene	ug/l	ND	09/23/97	WSD		0.6		
Bromodichloromethane	ug/l	ND	09/23/97	WSD		0.4		
Bromomethane	ug/l	ND	09/23/97	WSD		1.2		
Bromoform	ug/l	ND	09/23/97	WSD		1.2		
2-Butanone (MEK)	ug/l	ND	09/23/97	WSD		12.0		
Carbon Disulfide	ug/l	ND	09/23/97	WSD		0.5		
Carbon Tetrachloride	ug/l	ND	09/23/97	WSD		0.5		
Chlorobenzene	ug/l	ND	09/23/97	WSD		0.6		
Chlorodibromomethane	ug/l	ND	09/23/97	WSD		0.5		
Chloroethane	ug/l	ND	09/23/97	WSD		0.8		
2-Chloroethylvinylether	ug/l	ND	09/23/97	WSD		9.6		
Chloroform	ug/l	1.0	09/23/97	WSD		0.8		
Chloromethane	ug/l	ND	09/23/97	WSD		1.2		
Dibromomethane	ug/l	ND	09/23/97	WSD		1.1		
1,2-Dichlorobenzene	ug/l	ND	09/23/97	WSD		0.8		
1,3-Dichlorobenzene	ug/l	ND	09/23/97	WSD		0.6		
1,4-Dichlorobenzene	ug/l	ND	09/23/97	WSD		0.8		
c-1,4-Dichloro-2-Butene	ug/l	ND	09/23/97	WSD		2.4		
t-1,4-Dichloro-2-Butene	ug/l	ND	09/23/97	WSD		2.1		
Dichlorodifluoromethane	ug/l	ND	09/23/97	WSD		1.0		
1,1-Dichloroethane	ug/l	ND	09/23/97	WSD		0.7		
1,2-Dichloroethane	ug/l	ND	09/23/97	WSD		0.9		
1,1-Dichloroethylene	ug/l	ND	09/23/97	WSD		0.6		
cis-1,2-Dichloroethylene	ug/l	ND	09/23/97	WSD		0.5		
t-1,2-Dichloroethylene	ug/l	ND	09/23/97	WSD		0.8		
1,2-Dichloropropane	ug/l	ND	09/23/97	WSD		0.6		
cis-1,3-Dichloropropene	ug/l	ND	09/23/97	WSD		0.5		
t-1,3-Dichloropropene	ug/l	ND	09/23/97	WSD		0.4		
Ethyl Benzene	ug/l	ND	09/23/97	WSD		0.6		

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Purchase Order Number: 40163  
Project Number: 40163

LIMS-BAT #: LIMS-32164  
Job Number: 32164  
Sample Matrix: GRND WATER

Sampled: 09/23/97  
MONITORING WELL  
MW-7

	Units	97B19418	Date	Analyzed	Analyst	HDL	SPEC	P/F
						---	---	---
Ethyl Methacrylate	ug/l		ND	09/23/97	WSD	0.8		
2-Hexanone	ug/l		ND	09/23/97	WSD	9.7		
Iodomethane	ug/l		ND	09/23/97	WSD	0.8		
Methyl tert-Butyl Ether (MTBE)	ug/l		ND	09/23/97	WSD	0.8		
Methylene Chloride	ug/l		BDL	09/23/97	WSD	3.0		
4-Methyl-2-Pantanone (MIBK)	ug/l		ND	09/23/97	WSD	8.8		
Styrene	ug/l		ND	09/23/97	WSD	0.7		
1,1,2,2-Tetrachloroethane	ug/l		ND	09/23/97	WSD	1.4		
Tetrachloroethylene	ug/l		ND	09/23/97	WSD	0.4		
Toluene	ug/l		ND	09/23/97	WSD	0.7		
1,1,1-Trichloroethane	ug/l		ND	09/23/97	WSD	0.9		
1,1,2-Trichloroethane	ug/l		ND	09/23/97	WSD	0.7		
Trichloroethylene	ug/l		ND	09/23/97	WSD	1.0		
Trichlorofluoromethane	ug/l		ND	09/23/97	WSD	0.7		
1,2,3-Trichloropropane	ug/l		ND	09/23/97	WSD	1.3		
Vinyl Acetate	ug/l		ND	09/23/97	WSD	16.4		
Vinyl Chloride	ug/l		ND	09/23/97	WSD	0.3		
m-Xylene	ug/l		ND	09/23/97	WSD	1.3		
o&p-Xylene	ug/l		ND	09/23/97	WSD	0.5		

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Purchase Order Number: 40163  
Project Number: 40163

LIMS-BAT #: LIMS-32164  
Job Number: 32164  
Sample Matrix: GRND WATER

Sampled: 09/23/97

MONITORING WELL  
HW-8

	Units	97B19419	Date	Analyzed	Analyst	MDL	SPEC LIMIT	P/F
Acetone	ug/l		ND	09/23/97	WSD	16.1		
Acrolein	ug/l		ND	09/23/97	WSD	20.0		
Acrylonitrile	ug/l		ND	09/23/97	WSD	7.6		
Benzene	ug/l		ND	09/23/97	WSD	0.6		
Bromodichloromethane	ug/l		ND	09/23/97	WSD	0.4		
Bromomethane	ug/l		ND	09/23/97	WSD	1.2		
Bromoform	ug/l		ND	09/23/97	WSD	1.2		
2-Butanone (MEK)	ug/l		ND	09/23/97	WSD	12.0		
Carbon Disulfide	ug/l		ND	09/23/97	WSD	0.5		
Carbon Tetrachloride	ug/l		ND	09/23/97	WSD	0.5		
Chlorobenzene	ug/l		ND	09/23/97	WSD	0.6		
Chlorodibromomethane	ug/l		ND	09/23/97	WSD	0.5		
Chloroethane	ug/l		ND	09/23/97	WSD	0.8		
2-Chloroethylvinylether	ug/l		ND	09/23/97	WSD	9.6		
Chloroform	ug/l		1.1	09/23/97	WSD	0.8		
Chloromethane	ug/l		ND	09/23/97	WSD	1.2		
Dibromomethane	ug/l		ND	09/23/97	WSD	1.1		
1,2-Dichlorobenzene	ug/l		ND	09/23/97	WSD	0.8		
1,3-Dichlorobenzene	ug/l		ND	09/23/97	WSD	0.6		
1,4-Dichlorobenzene	ug/l		ND	09/23/97	WSD	0.8		
c-1,4-Dichloro-2-Butene	ug/l		ND	09/23/97	WSD	2.4		
t-1,4-Dichloro-2-Butene	ug/l		ND	09/23/97	WSD	2.1		
Dichlorodifluoromethane	ug/l		ND	09/23/97	WSD	1.0		
1,1-Dichloroethane	ug/l		ND	09/23/97	WSD	0.7		
1,2-Dichloroethane	ug/l		ND	09/23/97	WSD	0.9		
1,1-Dichloroethylene	ug/l		ND	09/23/97	WSD	0.6		
cis-1,2-Dichloroethylene	ug/l		ND	09/23/97	WSD	0.5		
t-1,2-Dichloroethylene	ug/l		ND	09/23/97	WSD	0.8		
1,2-Dichloropropane	ug/l		ND	09/23/97	WSD	0.6		
cis-1,3-Dichloropropene	ug/l		ND	09/23/97	WSD	0.5		
t-1,3-Dichloropropene	ug/l		ND	09/23/97	WSD	0.4		
Ethyl Benzene	ug/l		ND	09/23/97	WSD	0.6		

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Purchase Order Number: 40163  
Project Number: 40163

LIMS-BAT #: LIMS-32164  
Job Number: 32164  
Sample Matrix: GRND WATER

Sampled: 09/23/97

MONITORING WELL  
MW-8

	Units	97B19419	Date	Analyzed	Analyst	MDL	SPEC	P/F
						---	-----	----
Ethyl Methacrylate	ug/l	ND	09/23/97	WSD		0.8		
2-Hexanone	ug/l	ND	09/23/97	WSD		9.7		
Iodomethane	ug/l	ND	09/23/97	WSD		0.8		
Methyl tert-Butyl Ether (MTBE)	ug/l	ND	09/23/97	WSD		0.8		
Methylene Chloride	ug/l	BDL	09/23/97	WSD		3.0		
4-Methyl-2-Pentanone (MIBK)	ug/l	ND	09/23/97	WSD		8.8		
Styrene	ug/l	ND	09/23/97	WSD		0.7		
1,1,2,2-Tetrachloroethane	ug/l	ND	09/23/97	WSD		1.4		
Tetrachloroethylene	ug/l	ND	09/23/97	WSD		0.4		
Toluene	ug/l	ND	09/23/97	WSD		0.7		
1,1,1-Trichloroethane	ug/l	ND	09/23/97	WSD		0.9		
1,1,2-Trichloroethane	ug/l	ND	09/23/97	WSD		0.7		
Trichloroethylene	ug/l	ND	09/23/97	WSD		1.0		
Trichlorofluoromethane	ug/l	ND	09/23/97	WSD		0.7		
1,2,3-Trichloropropane	ug/l	ND	09/23/97	WSD		1.3		
Vinyl Acetate	ug/l	ND	09/23/97	WSD		16.4		
Vinyl Chloride	ug/l	ND	09/23/97	WSD		0.3		
m-Xylene	ug/l	ND	09/23/97	WSD		1.3		
o&p-Xylene	ug/l	ND	09/23/97	WSD		0.5		

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Purchase Order Number: 40163  
Project Number: 40163

LIMS-BAT #: LIMS-32164  
Job Number: 32164  
Sample Matrix: GRND WATER

Sampled: 09/23/97

MONITORING WELL  
MW-9

	Units	97819420	Date	Analyzed	Analyst	MDL	SPEC	P/F
Acetone	ug/l		ND	09/23/97	WSD	16.1		
Acrolein	ug/l		ND	09/23/97	WSD	20.0		
Acrylonitrile	ug/l		ND	09/23/97	WSD	7.6		
Benzene	ug/l		ND	09/23/97	WSD	0.6		
Bromodichloromethane	ug/l		ND	09/23/97	WSD	0.4		
Bromomethane	ug/l		ND	09/23/97	WSD	1.2		
Bromoform	ug/l		ND	09/23/97	WSD	1.2		
2-Butanone (MEK)	ug/l		ND	09/23/97	WSD	12.0		
Carbon Disulfide	ug/l		ND	09/23/97	WSD	0.5		
Carbon Tetrachloride	ug/l		ND	09/23/97	WSD	0.5		
Chlorobenzene	ug/l		ND	09/23/97	WSD	0.6		
Chlorodibromomethane	ug/l		ND	09/23/97	WSD	0.5		
Chloroethane	ug/l		ND	09/23/97	WSD	0.8		
2-Chloroethylvinylether	ug/l		ND	09/23/97	WSD	9.6		
Chloroform	ug/l	0.8	09/23/97		WSD	0.8		
Chloromethane	ug/l		ND	09/23/97	WSD	1.2		
Dibromomethane	ug/l		ND	09/23/97	WSD	1.1		
1,2-Dichlorobenzene	ug/l		ND	09/23/97	WSD	0.8		
1,3-Dichlorobenzene	ug/l		ND	09/23/97	WSD	0.6		
1,4-Dichlorobenzene	ug/l		ND	09/23/97	WSD	0.8		
c-1,4-Dichloro-2-Butene	ug/l		ND	09/23/97	WSD	2.4		
t-1,4-Dichloro-2-Butene	ug/l		ND	09/23/97	WSD	2.1		
Dichlorodifluoromethane	ug/l		ND	09/23/97	WSD	1.0		
1,1-Dichloroethane	ug/l		ND	09/23/97	WSD	0.7		
1,2-Dichloroethane	ug/l		ND	09/23/97	WSD	0.9		
1,1-Dichloroethylene	ug/l		ND	09/23/97	WSD	0.6		
cis-1,2-Dichloroethylene	ug/l		ND	09/23/97	WSD	0.5		
t-1,2-Dichloroethylene	ug/l		ND	09/23/97	WSD	0.8		
1,2-Dichloropropane	ug/l		ND	09/23/97	WSD	0.6		
cis-1,3-Dichloropropene	ug/l		ND	09/23/97	WSD	0.5		
t-1,3-Dichloropropene	ug/l		ND	09/23/97	WSD	0.4		
Ethyl Benzene	ug/l		ND	09/23/97	WSD	0.6		

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Purchase Order Number: 40163  
Project Number: 40163

LIMS-BAT #: LIMS-32164  
Job Number: 32164  
Sample Matrix: GRND WATER

Sampled: 09/23/97

MONITORING WELL

MW-9

	Units	97B19420	Date	Analyzed	Analyst	MDL	SPEC	P/F
						-----	-----	-----
Ethyl Methacrylate	ug/l		ND	09/23/97	WSD	0.8		
2-Hexanone	ug/l		ND	09/23/97	WSD	9.7		
Iodomethane	ug/l		ND	09/23/97	WSD	0.8		
Methyl tert-Butyl Ether (MTBE)	ug/l		ND	09/23/97	WSD	0.8		
Methylene Chloride	ug/l		6.7	09/23/97	WSD	3.0		
4-Methyl-2-Pentanone (MIBK)	ug/l		ND	09/23/97	WSD	8.8		
Styrene	ug/l		ND	09/23/97	WSD	0.7		
1,1,2,2-Tetrachloroethane	ug/l		ND	09/23/97	WSD	1.4		
Tetrachloroethylene	ug/l		ND	09/23/97	WSD	0.4		
Toluene	ug/l		ND	09/23/97	WSD	0.7		
1,1,1-Trichloroethane	ug/l		ND	09/23/97	WSD	0.9		
1,1,2-Trichloroethane	ug/l		ND	09/23/97	WSD	0.7		
Trichloroethylene	ug/l		ND	09/23/97	WSD	1.0		
Trichlorofluoromethane	ug/l		ND	09/23/97	WSD	0.7		
1,2,3-Trichloropropane	ug/l		ND	09/23/97	WSD	1.3		
Vinyl Acetate	ug/l		ND	09/23/97	WSD	16.4		
Vinyl Chloride	ug/l		ND	09/23/97	WSD	0.3		
m-Xylene	ug/l		ND	09/23/97	WSD	1.3		
o&p-Xylene	ug/l		ND	09/23/97	WSD	0.5		

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Purchase Order Number: 40163  
Project Number: 40163

LIMS-BAT #: LIMS-32164  
Job Number: 32164  
Sample Matrix: GRND WATER

Sampled: 09/23/97

MONITORING WELL  
TRIP BLANK

	Units	97B19424	Date	Analyzed	Analyst	MDL	SPEC	LIMIT	P/F
Acetone	ug/l		ND	09/23/97	WSD	16.1			
Acrolein	ug/l		ND	09/23/97	WSD	20.0			
Acrylonitrile	ug/l		ND	09/23/97	WSD	7.6			
Benzene	ug/l		ND	09/23/97	WSD	0.6			
Bromodichloromethane	ug/l		ND	09/23/97	WSD	0.4			
Bromomethane	ug/l		ND	09/23/97	WSD	1.2			
Bromoform	ug/l		ND	09/23/97	WSD	1.2			
2-Butanone (MEK)	ug/l		ND	09/23/97	WSD	12.0			
Carbon Disulfide	ug/l		ND	09/23/97	WSD	0.5			
Carbon Tetrachloride	ug/l		ND	09/23/97	WSD	0.5			
Chlorobenzene	ug/l		ND	09/23/97	WSD	0.6			
Chlorodibromomethane	ug/l		ND	09/23/97	WSD	0.5			
Chloroethane	ug/l		ND	09/23/97	WSD	0.8			
2-Chloroethylvinylether	ug/l		ND	09/23/97	WSD	9.6			
Chloroform	ug/l	2.1	09/23/97		WSD	0.8			
Chloromethane	ug/l		ND	09/23/97	WSD	1.2			
Dibromomethane	ug/l		ND	09/23/97	WSD	1.1			
1,2-Dichlorobenzene	ug/l		ND	09/23/97	WSD	0.8			
1,3-Dichlorobenzene	ug/l		ND	09/23/97	WSD	0.6			
1,4-Dichlorobenzene	ug/l		ND	09/23/97	WSD	0.8			
c-1,4-Dichloro-2-Butene	ug/l		ND	09/23/97	WSD	2.4			
t-1,4-Dichloro-2-Butene	ug/l		ND	09/23/97	WSD	2.1			
Dichlorodifluoromethane	ug/l		ND	09/23/97	WSD	1.0			
1,1-Dichloroethane	ug/l		ND	09/23/97	WSD	0.7			
1,2-Dichloroethane	ug/l		ND	09/23/97	WSD	0.9			
1,1-Dichloroethylene	ug/l		ND	09/23/97	WSD	0.6			
cis-1,2-Dichloroethylene	ug/l		ND	09/23/97	WSD	0.5			
t-1,2-Dichloroethylene	ug/l		ND	09/23/97	WSD	0.8			
1,2-Dichloropropane	ug/l		ND	09/23/97	WSD	0.6			
cis-1,3-Dichloropropene	ug/l		ND	09/23/97	WSD	0.5			
t-1,3-Dichloropropene	ug/l		ND	09/23/97	WSD	0.4			
Ethyl Benzene	ug/l		ND	09/23/97	WSD	0.6			

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Purchase Order Number: 40163  
Project Number: 40163

LIMS-BAT #: LIMS-32164  
Job Number: 32164  
Sample Matrix: GRND WATER

Sampled: 09/23/97

MONITORING WELL  
TRIP BLANK

	Units	97B19424	Date	Analyzed	Analyst	MDL	SPEC	P/F
Ethyl Methacrylate	ug/l		ND	09/23/97	WSD	0.8		
2-Hexanone	ug/l		ND	09/23/97	WSD	9.7		
Iodomethane	ug/l		ND	09/23/97	WSD	0.8		
Methyl tert-Butyl Ether (MTBE)	ug/l		ND	09/23/97	WSD	0.8		
Methylene Chloride	ug/l		3.0	09/23/97	WSD	3.0		
4-Methyl-2-Pantanone (MIBK)	ug/l		ND	09/23/97	WSD	8.8		
Styrene	ug/l		ND	09/23/97	WSD	0.7		
1,1,2,2-Tetrachloroethane	ug/l		ND	09/23/97	WSD	1.4		
Tetrachloroethylene	ug/l		ND	09/23/97	WSD	0.4		
Toluene	ug/l		ND	09/23/97	WSD	0.7		
1,1,1-Trichloroethane	ug/l		ND	09/23/97	WSD	0.9		
1,1,2-Trichloroethane	ug/l		ND	09/23/97	WSD	0.7		
Trichloroethylene	ug/l		ND	09/23/97	WSD	1.0		
Trichlorofluoromethane	ug/l		ND	09/23/97	WSD	0.7		
1,2,3-Trichloropropane	ug/l		ND	09/23/97	WSD	1.3		
Vinyl Acetate	ug/l		ND	09/23/97	WSD	16.4		
Vinyl Chloride	ug/l		ND	09/23/97	WSD	0.3		
m-Xylene	ug/l		ND	09/23/97	WSD	1.3		
o&p-Xylene	ug/l		ND	09/23/97	WSD	0.5		

Analytical Method(s):

SW846 8240

SAMPLES ARE CONCENTRATED BY PURGE AND TRAP, FOLLOWED BY GC/MS TARGET  
COMPOUND ANALYSIS.

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## QC SUMMARY REPORT

SAMPLE QC: Sample Results with Duplicates

Sample Matrix Spikes and Matrix Spike Duplicates

BATCH QC: Lab Fortified Blanks and Duplicates

Standard Reference Materials and Duplicates

Method Blanks

Report Date: 09/29/97

Lims Bat #: LIMS-32164

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QC Batch Number: GCMS/VOL-1537

Sample Id	Analysis	QC Analysis	Values	Units	Limits
97B19418	d4-12-Dichloroethane	Surrogate Recovery	102.4	%	56.0-128.0
	d8-Toluene	Surrogate Recovery	99.2	%	65.0-113.0
	Bromofluorobenzene	Surrogate Recovery	99.2	%	62.0-137.0
97B19419	d4-12-Dichloroethane	Surrogate Recovery	99.2	%	56.0-128.0
	d8-Toluene	Surrogate Recovery	98.0	%	65.0-113.0
	Bromofluorobenzene	Surrogate Recovery	98.8	%	62.0-137.0
97B19420	Benzene	Sample Amount	<0.6	ug/l	
		Matrix Spk Amt Added	25.0	ug/l	
		MS Amt Measured	27.2	ug/l	
		Matrix Spike % Rec.	108.8	%	
		Duplicate Sample Amt	<0.6	ug/l	
		MSD Amount Added	25.0	ug/l	
		MSD Amt Measured	24.4	ug/l	
		MSD % Recovery	97.8	%	
		MSD Range	11.0	units	
		Sample Amount	<0.7	ug/l	
		Matrix Spk Amt Added	25.0	ug/l	
		MS Amt Measured	26.7	ug/l	
Toluene	Toluene	Matrix Spike % Rec.	106.8	%	
		Duplicate Sample Amt	<0.7	ug/l	
		MSD Amount Added	25.0	ug/l	
		MSD Amt Measured	23.6	ug/l	
		MSD % Recovery	94.5	%	
		MSD Range	12.2	units	
		Sample Amount	<1.0	ug/l	
		Matrix Spk Amt Added	25.0	ug/l	
		MS Amt Measured	25.4	ug/l	
		Matrix Spike % Rec.	101.6	%	
Trichloroethylene	Trichloroethylene	Duplicate Sample Amt	<1.0	ug/l	
		MSD Amount Added	25.0	ug/l	
		MSD Amt Measured	22.5	ug/l	
		MSD % Recovery	90.1	%	
		MSD Range	11.5	units	
		Sample Amount	<0.6	ug/l	
		Matrix Spk Amt Added	25.0	ug/l	
		MS Amt Measured	26.2	ug/l	
		Matrix Spike % Rec.	104.8	%	
		Duplicate Sample Amt	<0.6	ug/l	
1,1-Dichloroethylene	1,1-Dichloroethylene	Sample Amount	<0.6	ug/l	
		Matrix Spk Amt Added	25.0	ug/l	
		MS Amt Measured	26.2	ug/l	
		Matrix Spike % Rec.	104.8	%	
		Duplicate Sample Amt	<0.6	ug/l	

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BATCH QC: Lab Fortified Blanks and Duplicates

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Method Blanks

Report Date: 09/29/97

Lims Bat #: LIMS-32164

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QC Batch Number: GCMS/VOL-1537

Sample Id	Analysis	QC Analysis	Values	Units	Limits
			-----	-----	-----
		MSD Amount Added	25.0	ug/l	
		MSD Amt Measured	23.2	ug/l	
		MSD % Recovery	92.7	%	
		MSD Range	12.1	units	
	Chlorobenzene	Sample Amount	<0.6	ug/l	
		Matrix Spk Amt Added	25.0	ug/l	
		MS Amt Measured	27.7	ug/l	
		Matrix Spike % Rec.	110.8	%	
		Duplicate Sample Amt	<0.6	ug/l	
		MSD Amount Added	25.0	ug/l	
		MSD Amt Measured	24.3	ug/l	
		MSD % Recovery	97.3	%	
		MSD Range	13.5	units	
	d4-12-Dichloroethane	Surrogate Recovery	88.8	%	56.0-128.0
	d8-Toluene	Surrogate Recovery	96.8	%	65.0-113.0
	Bromofluorobenzene	Surrogate Recovery	94.8	%	62.0-137.0
97B19421	d4-12-Dichloroethane	Surrogate Recovery	103.6	%	56.0-128.0
	d8-Toluene	Surrogate Recovery	99.2	%	65.0-113.0
	Bromofluorobenzene	Surrogate Recovery	92.8	%	62.0-137.0
97B19422	d4-12-Dichloroethane	Surrogate Recovery	105.2	%	56.0-128.0
	d8-Toluene	Surrogate Recovery	97.2	%	65.0-113.0
	Bromofluorobenzene	Surrogate Recovery	92.4	%	62.0-137.0
97B19423	d4-12-Dichloroethane	Surrogate Recovery	99.2	%	56.0-128.0
	d8-Toluene	Surrogate Recovery	99.6	%	65.0-113.0
	Bromofluorobenzene	Surrogate Recovery	95.2	%	62.0-137.0
97B19424	d4-12-Dichloroethane	Surrogate Recovery	100.8	%	56.0-128.0
	d8-Toluene	Surrogate Recovery	100.4	%	65.0-113.0
	Bromofluorobenzene	Surrogate Recovery	98.0	%	62.0-137.0
BLANK-09591	Acetone	Blank	<16.1	ug/l	
	Benzene	Blank	<0.6	ug/l	
	Carbon Tetrachloride	Blank	<0.5	ug/l	
	Chloroform	Blank	1.3	ug/l	
	1,2-Dichloroethane	Blank	<0.9	ug/l	
	1,4-Dichlorobenzene	Blank	<0.8	ug/l	
	Ethyl Benzene	Blank	<0.6	ug/l	
	2-Butanone (MEK)	Blank	<12.0	ug/l	
	4-Methyl-2-Pentanone	Blank	<8.8	ug/l	
	Styrene	Blank	<0.7	ug/l	
	Tetrachloroethylene	Blank	<0.4	ug/l	

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Standard Reference Materials and Duplicates

Method Blanks

Report Date: 09/29/97

Lims Bat #: LIMS-32164

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QC Batch Number: GCMS/VOL-1537

Sample Id	Analysis	QC Analysis	Values	Units	Limits
Toluene	Blank	<0.7	ug/l		
1,1,1-Trichloroethane	Blank	<0.9	ug/l		
Trichloroethylene	Blank	<1.0	ug/l		
Trichlorofluoromethane	Blank	<0.7	ug/l		
o,p-Xylene	Blank	<0.5	ug/l		
m-Xylene	Blank	<1.3	ug/l		
1,2-Dichlorobenzene	Blank	<0.8	ug/l		
1,3-Dichlorobenzene	Blank	<0.6	ug/l		
1,1-Dichloroethane	Blank	<0.7	ug/l		
1,1-Dichloroethylene	Blank	<0.6	ug/l		
Methyl tert-Butyl Et	Blank	<0.8	ug/l		
t-1,2-Dichloroethyle	Blank	<0.8	ug/l		
Vinyl Chloride	Blank	<0.3	ug/l		
Methylene Chloride	Blank	<3.0	ug/l		
Chlorobenzene	Blank	<0.6	ug/l		
Chloromethane	Blank	<1.2	ug/l		
Bromomethane	Blank	<1.2	ug/l		
Chloroethane	Blank	<0.8	ug/l		
cis-1,3-Dichloroprop	Blank	<0.5	ug/l		
t-1,3-Dichloropropen	Blank	<0.4	ug/l		
Chlorodibromomethane	Blank	<0.5	ug/l		
1,1,2-Trichloroethan	Blank	<0.7	ug/l		
2-Chloroethylvinylet	Blank	<9.6	ug/l		
Bromoform	Blank	<1.2	ug/l		
1,1,2,2-Tetrachloroe	Blank	<1.4	ug/l		
Dibromomethane	Blank	<1.1	ug/l		
cis-1,2-Dichloroethy	Blank	<0.5	ug/l		
1,2-Dichloropropane	Blank	<0.6	ug/l		
1,2,3-Trichloropropa	Blank	<1.3	ug/l		
Dichlorodifluorometh	Blank	<1.0	ug/l		
Iodomethane	Blank	<0.8	ug/l		
Acrolein	Blank	<20.0	ug/l		
Acrylonitrile	Blank	<7.6	ug/l		
Carbon Disulfide	Blank	<0.5	ug/l		
Vinyl Acetate	Blank	<16.4	ug/l		
2-Hexanone	Blank	<9.7	ug/l		
t-1,4-Dichloro-2-But	Blank	<2.1	ug/l		
Ethyl Methacrylate	Blank	<0.8	ug/l		
c-1,4-Dichloro-2-But	Blank	<2.4	ug/l		



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Method Blanks

Report Date: 09/29/97

Lims Bat #: LIMS-32164

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QC Batch Number: GCMS/VOL-1537

Sample Id	Analysis	QC Analysis	Values	Units	Limits
-----	-----	-----	-----	-----	-----
	Bromodichloromethane	Blank	<0.4	ug/l	



